GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: December 13, 2005, 08:58:09 ; Search time 232 Seconds
(without alignments)
1222.510 Million cell updates/sec

Title: US-10-506-406-2
Perfect score: 2071
Sequence: 1 MQMSPALTCLVLGLALVFGE.....FVVRHNPTGTVLFMGQVMEP 402

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 2166443 seqs, 705528306 residues

Total number of hits satisfying chosen parameters: 2166443

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : UniProt_05.80:*
1: uniprot_sprot:*
2: uniprot_trembl:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	2071	100.0	402	1	PAI1_HUMAN	P05121 homo sapien
2	2019	97.5	402	2	Q8WND4_CERAE	Q8wnd4 cercopithec
3	1790	86.4	402	1	PAI1_PIG	P79335 sus scrofa
4	1784	86.1	402	1	PAI1_BOVIN	P13909 bos taurus
5	1746	84.3	400	1	PAI1_MUSVI	P50449 mustela vis
6	1680	81.1	402	1	PAI1_RAT	P20961 rattus norv
7	1631	78.8	402	2	Q7TPE9_MOUSE	Q7tpe9 mus musculu
8	1626	78.5	402	1	PAI1_MOUSE	P22777 mus musculu
9	1256	60.6	280	2	Q8MI31_HORSE	Q8mi31 equus cabal
10	863	41.7	182	2	O77772_RABIT	O77772 oryctolagus
11	842	40.7	395	2	Q6DD81_XENLA	Q6dd81 xenopus lae
12	796.5	38.5	397	1	GDN_MOUSE	Q07235 mus musculu
13	796.5	38.5	397	2	Q543R5_MOUSE	Q543r5 m 16 days e
14	796.5	38.5	397	2	Q4FJU1_MOUSE	Q4fju1 mus musculu
15	791.5	38.2	397	1	GDN_RAT	P07092 rattus norv
16	781.5	37.7	397	2	Q8HZY1_BOVIN	Q8hzy1 bos taurus
17	779.5	37.6	397	2	Q8WNW8_PIG	Q8wnw8 sus scrofa
18	770.5	37.2	397	2	Q5D0C4_HUMAN	Q5d0c4 homo sapien
19	761	36.7	397	2	Q4RYZ2_TETNG	Q4ryz2 tetraodon n
20	761	36.7	398	1	GDN_HUMAN	P07093 homo sapien
21	761	36.7	398	2	Q53S15_HUMAN	Q53s15 homo sapien
22	756.5	36.5	395	2	Q7ZVL5_BRARE	Q7zvl5 brachydanio
23	721.5	34.8	330	2	Q4TBF0_TETNG	Q4tbf0 tetraodon n
24	620	29.9	410	1	NEUS_CHICK	Q90935 gallus gall
25	609	29.4	410	2	Q6GLT7_XENLA	Q6glt7 xenopus lae
26	604	29.2	410	1	NEUS_RAT	Q9jld2 rattus norv
27	594	28.7	410	1	NEUS_MOUSE	O35684 mus musculu
28	594	28.7	410	2	Q543F7_MOUSE	Q543f7 m 12 days e
29	593	28.6	410	1	NEUS_HUMAN	Q99574 homo sapien
30	593	28.6	410	2	Q6AHZ4_HUMAN	Q6ahz4 homo sapien
31	588	28.4	383	2	Q9DHV2_YLDV	Q9dhv2 yaba-like d
32	569.5	27.5	315	2	Q6P808_XENTR	Q6p808 xenopus tro
33	564	27.2	433	2	Q5U527_XENLA	Q5u527 xenopus lae
34	554.5	26.8	407	2	Q6HA07_BRALA	Q6ha07 branchiosto
35	548.5	26.5	410	2	Q5FVZ7_XENTR	Q5fvz7 xenopus tro
36	546.5	26.4	380	2	Q64HW4_ONCMY	Q64hw4 oncorhynchu
37	534	25.8	405	1	SPI2_HUMAN	O75830 homo sapien
38	529	25.5	125	2	Q7YSA1_CANFA	Q7ysa1 canis famil
39	525	25.4	387	2	Q8BHL1_MOUSE	Q8bhl1 mus musculu
40	524	25.3	387	2	Q6UKZ2_MOUSE	Q6ukz2 mus musculu
41	523	25.3	387	2	Q9D1Q5_MOUSE	Q9d1q5 mus musculu
42	519	25.1	123	2	Q6R745_CANFA	Q6r745 canis famil
43	513.5	24.8	384	2	Q6TGU1_BRARE	Q6tgu1 brachydanio
44	511.5	24.7	378	1	ILEU_PIG	P80229 sus scrofa
45	510	24.6	405	1	SPI2_MOUSE	Q9jk88 mus musculu

ALIGNMENTS

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RESULT 1
PAI1_HUMAN
ID   PAI1_HUMAN      STANDARD;      PRT;   402 AA.
AC   P05121;
DT   13-AUG-1987 (Rel. 05, Created)
DT   13-AUG-1987 (Rel. 05, Last sequence update)
DT   13-SEP-2005 (Rel. 48, Last annotation update)
DE   Plasminogen activator inhibitor-1 precursor (PAI-1) (Endothelial
DE   plasminogen activator inhibitor) (PAI).
GN   Name=SERPINE1; Synonyms=PAI1, PLANH1;
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC   Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RX   MEDLINE=87053819; PubMed=2430793;
RA   Pannekoek H., Veerman H., Lambers H., Diergaarde P., Verweij C.L.,
RA   van Zonneveld A.-J., van Mourik J.A.;
RT   "Endothelial plasminogen activator inhibitor (PAI): a new member of
RT   the Serpin gene family.";
RL   EMBO J. 5:2539-2544(1986).
RN   [2]
RP   NUCLEOTIDE SEQUENCE.
RX   MEDLINE=88000586; PubMed=2820474;
RA   Loskutoff D.J., Linders M., Keijer J., Veerman H.,
RA   van Heerikhuizen H., Pannekoek H.;
RT   "Structure of the human plasminogen activator inhibitor 1 gene:
RT   nonrandom distribution of introns.";
RL   Biochemistry 26:3763-3768(1987).
RN   [3]
RP   NUCLEOTIDE SEQUENCE.
RX   MEDLINE=87058123; PubMed=3097076;
RA   Ginsburg D., Zeheb R., Yang A.Y., Rafferty U.M., Andreasen P.A.,
RA   Nielsen L., Dano K., Lebo R.V., Gelehrter T.D.;
RT   "cDNA cloning of human plasminogen activator-inhibitor from
RT   endothelial cells.";
RL   J. Clin. Invest. 78:1673-1680(1986).
RN   [4]
RP   NUCLEOTIDE SEQUENCE.
RX   MEDLINE=90128289; PubMed=2612914; DOI=10.1016/0378-1119(89)90519-2;
RA   Follo M., Ginsburg D.;
RT   "Structure and expression of the human gene encoding plasminogen
RT   activator inhibitor, PAI-1.";
RL   Gene 84:447-453(1989).
RN   [5]
RP   NUCLEOTIDE SEQUENCE.
RX   MEDLINE=89005111; PubMed=3262512;
RA   Strandberg L., Lawrence D., Ny T.;
RT   "The organization of the human-plasminogen-activator-inhibitor-1 gene.
RT   Implications on the evolution of the serine-protease inhibitor
RT   family.";
RL   Eur. J. Biochem. 176:609-616(1988).
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RN [6]
RP NUCLEOTIDE SEQUENCE.
RX MEDLINE=88243790; PubMed=3132455;
RA Bosma P.J., van den Berg E.A., Kooistra T., Siemieniak D.R.,
RA Slightom J.L.;
RT "Human plasminogen activator inhibitor-1 gene. Promoter and structural
RT gene nucleotide sequences.";
RL J. Biol. Chem. 263:9129-9141(1988).
RN [7]
RP NUCLEOTIDE SEQUENCE.
RA Pannekoek H.;
RL Submitted (FEB-1992) to the EMBL/GenBank/DDBJ databases.
RN [8]
RP INTERACTION WITH VTN.
RX MEDLINE=94368811; PubMed=7522053; DOI=10.1016/0167-4838(94)90166-X;
RA Sigurdardottir O., Wiman B.;
RT "Identification of a PAI-1 binding site in vitronectin.";
RL Biochim. Biophys. Acta 1208:104-110(1994).
RN [9]
RP NUCLEOTIDE SEQUENCE.
RA Cordes M., Doela D.;
RL Submitted (JUN-1998) to the EMBL/GenBank/DDBJ databases.
RN [10]
RP NUCLEOTIDE SEQUENCE [GENOMIC DNA], AND VARIANTS THR-15; ILE-17;
RP PRO-25; HIS-209 AND ASN-255.
RA Rieder M.J., Carrington D.P., Chung M.-W., Lee K.L., Poel C.L., Yi Q.,
RA Nickerson D.A.;
RT "SeattleSNPs. NHLBI HL66682 program for genomic applications, UW-
RT FHCRC, Seattle, WA (URL: http://pga.gs.washington.edu).";
RL Submitted (JUN-2001) to the EMBL/GenBank/DDBJ databases.
RN [11]
RP NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA].
RC TISSUE=Lung;
RX MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
RA Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT "Generation and initial analysis of more than 15,000 full-length human
RT and mouse cDNA sequences.";
RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN [12]
RP NUCLEOTIDE SEQUENCE OF 20-402.
RX MEDLINE=86313660; PubMed=3092219;
RA Ny T., Sawdey M., Lawrence D., Millan J.L., Loskutoff D.J.;
RT "Cloning and sequence of a cDNA coding for the human beta-migrating
RT endothelial-cell-type plasminogen activator inhibitor.";
RL Proc. Natl. Acad. Sci. U.S.A. 83:6776-6780(1986).
RN [13]
RP NUCLEOTIDE SEQUENCE OF 1-47 AND 364-402.
RX MEDLINE=87080762; PubMed=3025016; DOI=10.1016/0014-5793(86)81113-9;
RA Andreasen P.A., Riccio A., Welinder K.G., Douglas R., Sartorio R.,
RA Nielsen L.S., Oppenheimer C., Blasi F., Danoe K.;
RT "Plasminogen activator inhibitor type-1: reactive center and amino-
RT terminal heterogeneity determined by protein and cDNA sequencing.";
RL FEBS Lett. 209:213-218(1986).
RN [14]
RP NUCLEOTIDE SEQUENCE OF 17-402, AND PARTIAL PROTEIN SEQUENCE.
RC TISSUE=Placenta;
RX MEDLINE=87105925; PubMed=3026837; DOI=10.1016/0014-5793(87)81288-7;
RA Wun T.C., Kretzmer K.K.;
RT "cDNA cloning and expression in E. coli of a plasminogen activator
RT inhibitor (PAI) related to a PAI produced by Hep G2 hepatoma cell.";
RL FEBS Lett. 210:11-16(1987).
RN [15]
RP X-RAY CRYSTALLOGRAPHY (2.6 ANGSTROMS).
RX MEDLINE=92114970; PubMed=1731226; DOI=10.1038/355270a0;
RA Mottonen J., Strand A., Symersky J., Sweet R.M., Danley D.E.,
RA Geoghegan K.F., Gerard R.D., Goldsmith E.J.;
RT "Structural basis of latency in plasminogen activator inhibitor-1.";
RL Nature 355:270-273(1992).
RN [16]
RP X-RAY CRYSTALLOGRAPHY (2.7 ANGSTROMS).
RX MEDLINE=96003732; PubMed=7552714;
RA Aertgeerts K., de Bondt H.L., de Ranter C.J., Declerck P.J.;
RT "Mechanisms contributing to the conformational and functional
RT flexibility of plasminogen activator inhibitor-1.";
RL Nat. Struct. Biol. 2:891-897(1995).
RN [17]
RP X-RAY CRYSTALLOGRAPHY (1.95 ANGSTROMS).
RX MEDLINE=98298439; PubMed=9634700; DOI=10.1016/S0969-2126(98)00064-1;
RA Xue Y., Bjoerquist P., Inghardt T., Linschoten M., Musil D.,
RA Sjoelin L., Deinum J.;
RT "Interfering with the inhibitory mechanism of serpins: crystal
RT structure of a complex formed between cleaved plasminogen activator
RT inhibitor type 1 and a reactive-centre loop peptide.";
RL Structure 6:627-636(1998).
RN [18]
RP X-RAY CRYSTALLOGRAPHY (2.99 ANGSTROMS).
RX MEDLINE=99148119; PubMed=10368279; DOI=10.1016/S0969-2126(99)80018-5;
RA Sharp A.M., Stein P.E., Pannu N.S., Carrell R.W., Berkenpas M.B.,
RA Ginsburg D., Lawrence D.A., Read R.J.;
RT "The active conformation of plasminogen activator inhibitor 1, a
RT target for drugs to control fibrinolysis and cell adhesion.";
RL Structure 7:111-118(1999).
RN [19]
RP X-RAY CRYSTALLOGRAPHY (2.7 ANGSTROMS).
RX MEDLINE=20198318; PubMed=10731421; DOI=10.1006/jmbi.2000.3604;
RA Nar H., Bauer M., Stassen J.M., Lang D., Gils A., Declerck P.J.;
RT "Plasminogen activator inhibitor 1. Structure of the native serpin,
RT comparison to its other conformers and implications for serpin
RT inactivation.";
RL J. Mol. Biol. 297:683-695(2000).
RN [20]
RP VARIANT THR-15.
RX MEDLINE=97337920; PubMed=9194591;
RA Turkmen B., Schmitt M., Schmalfeldt B., Trommler P., Hell W.,
RA Creutzburg S., Graeff H., Magdolen V.;
RT "Mutational analysis of the genes encoding urokinase-type plasminogen
RT activator (uPA) and its inhibitor PAI-1 in advanced ovarian cancer.";
RL Electrophoresis 18:686-689(1997).
RN [21]
RP VARIANTS THR-15 AND ILE-17.
RX MEDLINE=99318093; PubMed=10391209; DOI=10.1038/10290;
RA Cargill M., Altshuler D., Ireland J., Sklar P., Ardlie K., Patil N.,
RA Shaw N., Lane C.R., Lim E.P., Kalyanaraman N., Nemesh J., Ziaugra L.,
RA Friedland L., Rolfe A., Warrington J., Lipshutz R., Daley G.Q.,
RA Lander E.S.;
RT "Characterization of single-nucleotide polymorphisms in coding regions
RT of human genes.";
RL Nat. Genet. 22:231-238(1999).
RN [22]
RP ERRATUM.
RA Cargill M., Altshuler D., Ireland J., Sklar P., Ardlie K., Patil N.,
RA Shaw N., Lane C.R., Lim E.P., Kalyanaraman N., Nemesh J., Ziaugra L.,
RA Friedland L., Rolfe A., Warrington J., Lipshutz R., Daley G.Q.,
RA Lander E.S.;
RL Nat. Genet. 23:373-373(1999).
RN [23]
RP INTERACTION WITH LRP1B.
RX MEDLINE=21369943; PubMed=11384978; DOI=10.1074/jbc.M102727200;
RA Liu C.-X., Li Y., Obermoeller-McCormick L.M., Schwartz A.L., Bu G.;
RT "The putative tumor suppressor LRP1B, a novel member of the low

```
RT   density lipoprotein (LDL) receptor family, exhibits both overlapping
RT   and distinct properties with the LDL receptor-related protein.";

  Query Match             100.0%;  Score 2071;  DB 1;  Length 402;
  Best Local Similarity   100.0%;  Pred. No. 4.5e-158;
  Matches  402;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120

Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
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Db        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402


RESULT 2
Q8WND4_CERAE
ID   Q8WND4_CERAE PRELIMINARY;      PRT;   402 AA.
AC   Q8WND4;
DT   01-MAR-2002 (TrEMBLrel. 20, Created)
DT   01-MAR-2002 (TrEMBLrel. 20, Last sequence update)
DT   01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE   Plasminogen activator inhibitor type-1.
OS   Cercopithecus aethiops (Green monkey) (Grivet).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
OC   Cercopithecidae; Cercopithecinae; Cercopithecus.
OX   NCBI_TaxID=9534;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RA   Meissenheimer L.M., De Lange W.J., Corfield V.A., Moolman-Smook J.C.,
RA   Leng H.M.J.;
RT   "Isolation and Characterization of the Vervet Monkey Plasminogen
RT   Activator Inhibitor Type-1 (PAI-1) gene.";
RL   Submitted (JAN-2005) to the EMBL/GenBank/DDBJ databases.
CC   -!- SIMILARITY: Belongs to the serpin family.
DR   EMBL; AF393201; AAL59139.2; -; mRNA.
DR   SMR; Q8WND4; 24-402.
DR   GO; GO:0004867; F:serine-type endopeptidase inhibitor activity; IEA.
DR   InterPro; IPR000215; Prot_inh_serpin.
DR   Pfam; PF00079; Serpin; 1.
DR   SMART; SM00093; SERPIN; 1.
DR   PROSITE; PS00284; SERPIN; 1.
KW   Serpin.
SQ   SEQUENCE   402 AA;  45092 MW;  8C4B80E0DCFF9A27 CRC64;

  Query Match             97.5%;  Score 2019;  DB 2;  Length 402;
  Best Local Similarity   97.0%;  Pred. No. 7e-154;
  Matches  390;  Conservative    6;  Mismatches    6;  Indels    0;  Gaps    0;

Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
              | ||||| ||||||| |||||| ||||||||||||||||||||||||||||||||||||
Db          1 MHMSPALACLVLGLAFVFGEGSTVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
              |||||||||||||||:|||||||||||||||||||||||:|||||||||||||||||||
Db         61 GVASVLAMLQLTTGGETRQQIQAAMGFKIDDKGMAPALRHLYKELLGPWNKDEISTTDAI 120

Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
              |||||||||||||||||||||||||||||||||||||||||||||:|||||||||||||
Db        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEAERARFIINDWVKTHTKGMISDLLGKGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
              |||||||||||||| ||||||||||||||||||||||||||||||||||||||||||||
Db        181 DQLTRLVLVNALYFNGHWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
              |||||||||||||:|||||||||||:|||||||||||||||||||||||||||||||||||
Db        241 GHYYDILELPYHGNTLSMFIAAPYEKQVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
              |||||||||||||||||||||||||||||:|||||||||||||||||||||||||||||
Db        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSNQEPLHVAQALQKVKIEVNESGTVASS 360

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
              |||||||||||||||||||||||||||||||||||||||||||
Db        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402


RESULT 3
PAI1_PIG
ID   PAI1_PIG       STANDARD;      PRT;   402 AA.
AC   P79335;
DT   15-JUL-1998 (Rel. 36, Created)
DT   15-JUL-1998 (Rel. 36, Last sequence update)
DT   10-MAY-2005 (Rel. 47, Last annotation update)
DE   Plasminogen activator inhibitor-1 precursor (PAI-1) (Endothelial
DE   plasminogen activator inhibitor) (PAI).
GN   Name=SERPINE1; Synonyms=PAI1, PLANH1;
OS   Sus scrofa (Pig).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Suina; Suidae;
OC   Sus.
OX   NCBI_TaxID=9823;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RX   MEDLINE=97206538; PubMed=9157595;
RA   Bijnens A.P., Knockaert I., Cousin E., Kruithof E.K.O., Declerck P.J.;
RT   "Expression and characterization of recombinant porcine plasminogen
RT   activator inhibitor-1.";
RL   Thromb. Haemost. 77:350-356(1997).
RN   [2]
RP   ERRATUM.
RA   Bijnens A.P., Knockaert I., Cousin E., Kruithof E.K.O., Declerck P.J.;
RL   Thromb. Haemost. 77:1046-1046(1997).
CC   -!- FUNCTION: This inhibitor acts as "bait" for tissue plasminogen
CC       activator, urokinase, and protein C. Its rapid interaction with
CC       TPA may function as a major control point in the regulation of
CC       fibrinolysis.
CC   -!- SUBUNIT: Interacts with VTN. Binds LRP1B; binding is followed by
CC       internalization and degradation (By similarity).
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- SIMILARITY: Belongs to the serpin family.
CC   ---------------------------------------------------------------------
CC   This Swiss-Prot entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use as long as its content is in no way modified and this statement is not
CC   removed.
CC   ---------------------------------------------------------------------
DR   EMBL; Y11347; CAA72182.1; -; mRNA.
DR   HSSP; P05121; 9PAI.
DR   SMR; P79335; 26-402.
DR   InterPro; IPR000215; Prot_inh_serpin.
DR   PANTHER; PTHR11461; Prot_Inh_serpin; 1.
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DR   Pfam; PF00079; Serpin; 1.
DR   PROSITE; PS00284; SERPIN; 1.
KW   Glycoprotein; Plasma; Plasminogen activation; Protease inhibitor;
KW   Serine protease inhibitor; Serpin; Signal.
FT   SIGNAL        1     23       By similarity.
FT   CHAIN        24    402       Plasminogen activator inhibitor-1.
FT   SITE        369    370       Reactive bond.
FT   CARBOHYD    232    232       N-linked (GlcNAc. . .) (Potential).
FT   CARBOHYD    288    288       N-linked (GlcNAc. . .) (Potential).
FT   CARBOHYD    352    352       N-linked (GlcNAc. . .) (Potential).
SQ   SEQUENCE   402 AA;  45450 MW;  13F60E5F4F8FE405 CRC64;

  Query Match             86.4%;  Score 1790;  DB 1;  Length 402;
  Best Local Similarity   86.3%;  Pred. No. 1.9e-135;
  Matches  347;  Conservative   26;  Mismatches   29;  Indels    0;  Gaps    0;

Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
              |:||    || :|||| | |||| |  |  | ||:||||:||:|| ||||||||||||||
Db          1 MRMSLVFACLAMGLALTFAEGSASSHHQSLAARLATDFGVKVFRQVVQASKDRNVVFSPY 60

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
              |||||||||||| |:|||||| || |||::|||||||| |||||||||||||||| |||
Db         61 GVASVLAMLQLTTAGDTQQQIQEAMQFKIEEKGMAPALRQLYKELMGPWNKDEISTADAI 120

Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
              |||||||||||||:|||||:|||||||::|||||||||| ||||||::|||:|||
Db        121 FVQRDLKLVQGFMPYFFRLFRTTVKQVDFSEMDRARFIINDWVKRHTKGMINDLLGQGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
              |||||||||||||||||||||: ||| |||||||||||||||||||||||:|||
Db        181 DQLTRLVLVNALYFNGQWKTPFPEKSTHHRLFHKSDGSTVSVPMMAQTNKFNYTEFSTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
              |||||||||||||:|||||||||||||||||||:|| ||||| |||||||| |||||||
Db        241 GHYYDILELPYHGNTLSMFIAAPYEKEVPLSALTSILDAQLISQWKGNMTRLTRLLVLPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
              ||||:|||||:|||||||||||  ||||:|||||| |:::|||||||||||||||||||
Db        301 FSLESEVDLRRPLENLGMTDMFRPNQADFSSLSDQELLYMSQALQKVKIEVNESGTVASS 360

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
              |||:|||||||||||||||||||||||||||||||||||||
Db        361 STAIIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402


RESULT 4
PAI1_BOVIN
ID   PAI1_BOVIN     STANDARD;      PRT;   402 AA.
AC   P13909;
DT   01-JAN-1990 (Rel. 13, Created)
DT   01-JAN-1990 (Rel. 13, Last sequence update)
DT   10-MAY-2005 (Rel. 47, Last annotation update)
DE   Plasminogen activator inhibitor-1 precursor (PAI-1) (Endothelial
DE   plasminogen activator inhibitor) (PAI).
GN   Name=SERPINE1; Synonyms=PAI1;
OS   Bos taurus (Bovine).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Ruminantia;
OC   Pecora; Bovidae; Bovinae; Bos.
OX   NCBI_TaxID=9913;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RX   MEDLINE=90067867; PubMed=2587231;
RA   Mimuro J., Sawdey M., Hatiori M., Loskutoff D.J.;
RT   "cDNA for bovine type 1 plasminogen activator inhibitor (PAI-1).";
RL   Nucleic Acids Res. 17:8872-8872(1989).
RN   [2]
RP   PROTEIN SEQUENCE OF 24-63.
RX   MEDLINE=88329072; PubMed=3262060;
RA   Katagiri K., Okada K., Hattori H., Yano M.;
RT   "Bovine endothelial cell plasminogen activator inhibitor. Purification
RT   and heat activation.";
RL   Eur. J. Biochem. 176:81-87(1988).
RN   [3]
RP   NUCLEOTIDE SEQUENCE OF 153-235.
RC   TISSUE=Adrenal cortex;
RX   MEDLINE=90338128; PubMed=1696269; DOI=10.1083/jcb.111.2.743;
RA   Pepper M.S., Belin D., Montesano R., Orci L., Vassalli J.-D.;
RT   "Transforming growth factor-beta 1 modulates basic fibroblast growth
RT   factor-induced proteolytic and angiogenic properties of endothelial
RT   cells in vitro.";
RL   J. Cell Biol. 111:743-755(1990).
CC   -!- FUNCTION: This inhibitor acts as "bait" for tissue plasminogen
CC       activator, urokinase, and protein C. Its rapid interaction with
CC       TPA may function as a major control point in the regulation of
CC       fibrinolysis.
CC   -!- SUBUNIT: Interacts with VTN. Binds LRP1B; binding is followed by
CC       internalization and degradation (By similarity).
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- TISSUE SPECIFICITY: Vascular endothelial cells may be the primary
CC       site of synthesis of plasma PAI.
CC   -!- SIMILARITY: Belongs to the serpin family.
CC   ----------------------------------------------------------------------
CC   This Swiss-Prot entry is copyright. It is produced through a collaboration
CC   between  the Swiss Institute of Bioinformatics  and the  EMBL outstation -
CC   the European Bioinformatics Institute.  There are no  restrictions on  its
CC   use as long as its content is in no way modified and this statement is not
CC   removed.
CC   ----------------------------------------------------------------------
DR   EMBL; X16383; CAA34419.1; -; mRNA.
DR   EMBL; X52906; CAA37094.1; -; mRNA.
DR   PIR; S06745; S06745.
DR   HSSP; P05121; 9PAI.
DR   SMR; P13909; 25-402.
DR   InterPro; IPR000215; Prot_inh_serpin.
DR   PANTHER; PTHR11461; Prot_inh_serpin; 1.
DR   Pfam; PF00079; Serpin; 1.
DR   PROSITE; PS00284; SERPIN; 1.
KW   Direct protein sequencing; Glycoprotein; Plasma;
KW   Plasminogen activation; Protease inhibitor; Serine protease inhibitor;
KW   Serpin; Signal.
FT   SIGNAL        1     23
FT   CHAIN        24    402       Plasminogen activator inhibitor-1.
FT   SITE        369    370       Reactive bond.
FT   CARBOHYD    232    232       N-linked (GlcNAc. . .) (Potential).
FT   CARBOHYD    288    288       N-linked (GlcNAc. . .) (Potential).
FT   CARBOHYD    352    352       N-linked (GlcNAc. . .) (Potential).
FT   CONFLICT     50     50       S -> L (in Ref. 2).
SQ   SEQUENCE   402 AA;  45371 MW;  90536173333C7D130 CRC64;

  Query Match             86.1%;  Score 1784;  DB 1;  Length 402;
  Best Local Similarity   85.3%;  Pred. No. 5.9e-135;
  Matches  343;  Conservative   29;  Mismatches   30;  Indels    0;  Gaps    0;

Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
              |:|||    || |||||:|||||| : | |  | ||:||||:|||||| :||||||||||||
Db          1 MRMSPVFACLALGLALIFGEGSASYQPQSAAASLATDFGVKVFQQVVRASKDRNVVFSPY 60

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
              |||||||||||||||:|||| || |||::||||||    |||||||||||||| |||
Db         61 GVASVLAMLQLTTGGETRQQIQEAMQFKIEEKGMAPAFHRLYKELMGPWNKDEISTADAI 120

Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
              ||||||:|| ||||:||||||:|||||||||||||||:||||| |||||||:|||:|||
Db        121 FVQRDLELVHGFMPNFFRLFRTTVKQVDFSEVERARFIVNDWVKRHTKGMISDLLGEGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
              |||||||||||||||||||| |||:|:|| ||||||||||:||||||||||||||||||||
Db        181 DQLTRLVLVNALYFNGQWKMPFPESNTHHRLFHKSDGSTISVPMMAQTNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
              | |||||||||:|||| ||||||||||||||:|| |:||| |||||||| |||||||
Db        241 GRYYDILELPYHGNTLSMLIAAPYEKEVPLSALTSILDAELISQWKGNMTRLTRLLVLPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
              ||||||:|||:|||||||||||  ||||:| |||| |:|:||||||||||||||:|||
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Db        301 FSLETEIDLRRPLENLGMTDMFRPSQADFSSFSDQEFLYVSQALQKVKIEVNESGTLASS 360

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
              |||::|||||||||||||||||||||||||||||||||||||
Db        361 STALVVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402


RESULT 5
PAI1_MUSVI
ID   PAI1_MUSVI     STANDARD;      PRT;   400 AA.
AC   P50449;
DT   01-OCT-1996 (Rel. 34, Created)
DT   01-OCT-1996 (Rel. 34, Last sequence update)
DT   10-MAY-2005 (Rel. 47, Last annotation update)
DE   Plasminogen activator inhibitor-1 precursor (PAI-1) (Endothelial
DE   plasminogen activator inhibitor) (PAI).
GN   Name=SERPINE1; Synonyms=PAI-1, PAI1, PLANH1;
OS   Mustela vison (American mink).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Laurasiatheria; Carnivora; Fissipedia; Mustelidae;
OC   Mustelinae; Mustela.
OX   NCBI_TaxID=9667;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RC   TISSUE=Lung;
RX   MEDLINE=96032362; PubMed=7557448; DOI=10.1016/0378-1119(95)00261-4;
RA   Chuang T.H., Hamilton R.T., Nilsen-Hamilton M.;
RT   "Cloning of the mink plasminogen activator inhibitor type-1 messenger
RT   RNA: an mRNA with a short half life.";
RL   Gene 162:303-308(1995).
CC   -!- FUNCTION: This inhibitor acts as "bait" for tissue plasminogen
CC       activator, urokinase, and protein C. Its rapid interaction with
CC       TPA may function as a major control point in the regulation of
CC       fibrinolysis.
CC   -!- SUBUNIT: Interacts with VTN. Binds LRP1B; binding is followed by
CC       internalization and degradation (By similarity).
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- SIMILARITY: Belongs to the serpin family.
CC   ---------------------------------------------------------------------
CC   This Swiss-Prot entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use as long as its content is in no way modified and this statement is not
CC   removed.
CC   ---------------------------------------------------------------------
DR   EMBL; X58541; CAA41433.1; -; mRNA.
DR   PIR; JC4265; JC4265.
DR   HSSP; P05121; 9PAI.
DR   SMR; P50449; 30-400.
DR   InterPro; IPR000215; Prot_inh_serpin.
DR   PANTHER; PTHR11461; Prot_inh_serpin; 1.
DR   Pfam; PF00079; Serpin; 1.
DR   PROSITE; PS00284; SERPIN; 1.
KW   Glycoprotein; Plasma; Plasminogen activation; Protease inhibitor;
KW   Serine protease inhibitor; Serpin; Signal.
FT   SIGNAL        1     21       Potential.
FT   CHAIN        22    400       Plasminogen activator inhibitor-1.
FT   SITE        367    368       Reactive bond (By similarity).
FT   CARBOHYD    230    230       N-linked (GlcNAc. . .) (Potential).
FT   CARBOHYD    286    286       N-linked (GlcNAc. . .) (Potential).
FT   CARBOHYD    350    350       N-linked (GlcNAc. . .) (Potential).
SQ   SEQUENCE   400 AA;  45153 MW;  DF45E0694DE28401 CRC64;

  Query Match             84.3%;  Score 1746;  DB 1;  Length 400;
  Best Local Similarity   85.3%;  Pred. No. 6.7e-132;
  Matches  343;  Conservative   25;  Mismatches   32;  Indels    2;  Gaps    1;

Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
              ||||    || |||||||||| ||  :   :  | ||:||||:||:||||||||||:|||||
Db          1 MQMS--TVCLALGLALVFGEASASYLHETRAAELATDFGVKVFKQVAQASKDRNMVFSPY 58

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
              |:||||||||||| |||:|||| || |:||:|||||||| ||||||||||||||| |||

Db         59 GLASVLAMLQLTTAGETRQQIQEAMRFQIDEKGMAPALRQLYKELMGPWNKDEISTADAI 118

Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
              ||||||||| ||||:|||||::|||||||||||||||||||||| |||||| :|||:| |
Db        119 FVQRDLKLVHGFMPYFFRLFQTTVKQVDFSEVERARFIINDWVKRHTKGMIGDLLGRGTV 178

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
              ||||||:|||||||||||||||| | || |||||||||||||||||||||||||||:||:
Db        179 DQLTRLMLVNALYFNGQWKTPFPKSGTHHRLFHKSDGSTVSVPMMAQTNKFNYTEFSTPE 238

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
              | |||||||||||||||||||||:|||||||||| ||||| ||||||| |||||||
Db        239 GRYYDILELPYHGDTLSMFIAAPYEKDVPLSALTNILDAQLISQWKGNMTRRLRLLVLPK 298

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
              ||||:||:|| ||||||||||||  ||||:|||||| |:|:|||||||||||||||||||
Db        299 FSLESEVNLRGPLENLGMTDMFRPNQADFSSLSDQEALYVSQALQKVKIEVNESGTVASS 358

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
              |||:|||||||||||||||||||||||||||||||||||||||
Db        359 STAIIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 400


RESULT 6
PAI1_RAT
ID   PAI1_RAT       STANDARD;      PRT;   402 AA.
AC   P20961;
DT   01-FEB-1991 (Rel. 17, Created)
DT   01-FEB-1991 (Rel. 17, Last sequence update)
DT   10-MAY-2005 (Rel. 47, Last annotation update)
DE   Plasminogen activator inhibitor-1 precursor (PAI-1) (Endothelial
DE   plasminogen activator inhibitor) (PAI).
GN   Name=Serpine1; Synonyms=Pai1, Planh1;
OS   Rattus norvegicus (Rat).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
OC   Muroidea; Muridae; Murinae; Rattus.
OX   NCBI_TaxID=10116;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RX   MEDLINE=90130456; PubMed=2298740;
RA   Bruzdzinski C.J., Riordan-Johnson M., Nordby E.C., Suter S.M.,
RA   Gelehrter T.D.;
RT   "Isolation and characterization of the rat plasminogen activator
RT   inhibitor-1 gene.";
RL   J. Biol. Chem. 265:2078-2085(1990).
RN   [2]
RP   NUCLEOTIDE SEQUENCE.
RX   MEDLINE=89211983; PubMed=3149611; DOI=10.1016/0378-1119(88)90510-0;
RA   Zeheb R., Gelehrter T.D.;
RT   "Cloning and sequencing of cDNA for the rat plasminogen activator
RT   inhibitor-1.";
RL   Gene 73:459-468(1988).
CC   -!- FUNCTION: This inhibitor acts as "bait" for tissue plasminogen
CC       activator, urokinase, and protein C. Its rapid interaction with
CC       TPA may function as a major control point in the regulation of
CC       fibrinolysis.
CC   -!- SUBUNIT: Interacts with VTN. Binds LRP1B; binding is followed by
CC       internalization and degradation (By similarity).
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- SIMILARITY: Belongs to the serpin family.
CC   ---------------------------------------------------------------------
CC   This Swiss-Prot entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use as long as its content is in no way modified and this statement is not
CC   removed.
CC   ---------------------------------------------------------------------
DR   EMBL; J05206; AAA41796.1; -; Genomic_DNA.
DR   EMBL; M24067; AAA56856.1; -; mRNA.
DR   PIR; A35032; A35032.
DR   HSSP; P05121; 1LJ5.
DR   SMR; P20961; 27-402.
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DR   Ensembl; ENSRNOG00000001414; Rattus norvegicus.
DR   RGD; 3249; Serpine1.
DR   InterPro; IPR000215; Prot_inh_serpin.
DR   PANTHER; PTHR11461; Prot_inh_serpin; 1.
DR   Pfam; PF00079; Serpin; 1.
DR   PROSITE; PS00284; SERPIN; 1.
KW   Glycoprotein; Plasma; Plasminogen activation; Protease inhibitor;
KW   Serine protease inhibitor; Serpin; Signal.
FT   SIGNAL        1     23       By similarity.
FT   CHAIN        24    402       Plasminogen activator inhibitor-1.
FT   SITE        369    370       Reactive bond.
FT   CARBOHYD     88     88       N-linked (GlcNAc. . .) (Potential).
FT   CARBOHYD    232    232       N-linked (GlcNAc. . .) (Potential).
FT   CARBOHYD    288    288       N-linked (GlcNAc. . .) (Potential).
FT   CARBOHYD    352    352       N-linked (GlcNAc. . .) (Potential).
SQ   SEQUENCE   402 AA;  45010 MW;  2B639140F475EB53 CRC64;

  Query Match             81.1%;  Score 1680;  DB 1;  Length 402;
  Best Local Similarity   80.8%;  Pred. No. 1.4e-126;
  Matches  325;  Conservative   36;  Mismatches   41;  Indels    0;  Gaps    0;

Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
              |||| ||||| ||| |||||| |    | |: |  |::|||:||| | ||||||||||||
Db          1 MQMSSALTCLTLGLVLVFGKGFASPLPESHTAQQATNFGVKVFQHVVQASKDRNVVFSPY 60

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
              ||:|||||||||| |:|:|||| |||| | ::| ||||| | ||||| |||:|||| |||
Db         61 GVSSVLAMLQLTTAGKTRQQIQDAMGFNISERGTAPALRKLSKELMGSWNKNEISTADAI 120

Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
              ||||||:||||||||||:|||:|||||||||||||||||||||: |||||||:|| ||||
Db        121 FVQRDLELVQGFMPHFFKLFRTTVKQVDFSEVERARFIINDWVERHTKGMISDLLAKGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
              ::|||||||||||||||||| ::|||:||||||||||:||||||| ||||||||||||
Db        181 NELTRLVLVNALYFNGQWKTPFLEASTHQRLFHKSDGSTISVPMMAQNNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
              || |||||||||:||||||||:||:|||||:|||| |:||  || |||||||||:|||
Db        241 GHEYDILELPYHGETLSMFIAAPFEKDVPLSAITNILDAELIRQWKSNMTRLPRLLILPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
              |||||||||| ||| |||||:|   |||||||||||| | ||||||||||||||||||||
Db        301 FSLETEVDLRGPLEKLGMTDIFSSTQADFTSLSDQEQLSVAQALQKVKIEVNESGTVASS 360

Qy        361 STAVIVSARMAPEEIIMDRPPLFVVRHNPTGTVLFMGQVMEP 402
              |||::|||||| |:::|| |||||||||| |:|||||:|||
Db        361 STAILVSARMAPTEMVLDRSFLFVVRHNPTETILFMGQLMEP 402


RESULT 7
Q7TPE9_MOUSE
ID   Q7TPE9_MOUSE PRELIMINARY;      PRT;   402 AA.
AC   Q7TPE9;
DT   01-OCT-2003 (TrEMBLrel. 25, Created)
DT   01-OCT-2003 (TrEMBLrel. 25, Last sequence update)
DT   01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
DE   Serpine1 protein.
GN   Name=Serpine1;
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
OC   Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RC   STRAIN=B5/EGFP transgenic ICR mice; TISSUE=Trophoblast Stem Cell;
RX   MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA   Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA   Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA   Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA   Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA   Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA   Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA   Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA   Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA   Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA   Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA   Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA   Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA   Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA   Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA   Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA   Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
RA   Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT   "Generation and initial analysis of more than 15,000 full-length human
RT   and mouse cDNA sequences.";
RL   Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN   [2]
RP   NUCLEOTIDE SEQUENCE.
RC   STRAIN=B5/EGFP transgenic ICR mice; TISSUE=Trophoblast Stem Cell;
RA   Strausberg R.;
RL   Submitted (JUN-2003) to the EMBL/GenBank/DDBJ databases.
CC   -!- SIMILARITY: Belongs to the serpin family.
DR   EMBL; BC054091; AAH54091.1; -; mRNA.
DR   HSSP; P05121; 1DVM.
DR   SMR; Q7TPE9; 29-401.
DR   MGI; MGI:97608; Serpine1.
DR   GO; GO:0005615; C:extracellular space; TAS.
DR   GO; GO:0005515; F:protein binding; IPI.
DR   GO; GO:0045765; P:regulation of angiogenesis; IDA.
DR   InterPro; IPR000215; Prot_inh_serpin.
DR   Pfam; PF00079; Serpin; 1.
DR   SMART; SM00093; SERPIN; 1.
DR   PROSITE; PS00284; SERPIN; UNKNOWN_1.
KW   Serpin.
SQ   SEQUENCE   402 AA;  45031 MW;  7471F1C3BD83D667 CRC64;

  Query Match             78.8%;  Score 1631;  DB 2;  Length 402;
  Best Local Similarity   79.1%;  Pred. No. 1.2e-122;
  Matches  317;  Conservative   41;  Mismatches   43;  Indels    0;  Gaps    0;

Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
              |||| || ||:||| || |:| |:    |: || |:||||:||||| ||||||||||||
Db          1 MQMSSALACLILGLVLVSGKGFALPLRESHTAHQATDFGVKVFQQVVQASKDRNVVFSPY 60

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
              ||:|||||||:|| |:|::||| |||||:::|| | ||| | |||||||||:|||| |||
Db         61 GVSSVLAMLQMTTAGKTRRQIQDAMGFKVNEKGTAHALRQLSKELMGPWNKNEISTADAI 120

Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
              ||||||:|||||||||:||:: ||||||||||||||||||||: ||||||::|| ||||
Db        121 FVQRDLELVQGFMPHFFKLFQTMVKQVDFSEVERARFIINDWVERHTKGMINDLLAKGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
              |:|||||||||||:||||||| ::|||:||||||||||||||||||:|||||||||||
Db        181 DELTRLVLVNALYFSGQWKTPFLEASTHQRLFHKSDGSTVSVPMMAQSNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
              |  ||::|||| ||||||||||:||:| |||||||| |:||  ||||||||||:|||
Db        241 GLEYDVVELPYQGDTLSMFIAAPFEKDVHLSALTNILDAELIRQWKGNMTRLPRLLILPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
              |||||||||| ||| ||| |||    |||||||||| | ||||||||:||||||||||||
Db        301 FSLETEVDLRGPLEKLGMPDMFSATLADFTSLSDQEQLSVAQALQKVRIEVNESGTVASS 360

Qy        361 STAVIVSARMAPEEIIMDRPPLFVVRHNPTGTVLFMGQVME 401
              ||| ::|||||| |:::|| |||||||||| |:||||||||
Db        361 STAFVISARMAPTEMVIDRSFLFVVRHNPTETILFMGQVME 401


RESULT 8
PAI1_MOUSE
ID   PAI1_MOUSE     STANDARD;      PRT;   402 AA.
AC   P22777;
DT   01-AUG-1991 (Rel. 19, Created)
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DT   01-AUG-1991 (Rel. 19, Last sequence update)
DT   10-MAY-2005 (Rel. 47, Last annotation update)
DE   Plasminogen activator inhibitor-1 precursor (PAI-1) (Endothelial
DE   plasminogen activator inhibitor) (PAI).
GN   Name=Serpine1; Synonyms=Mr1, Pai1, Planh1;
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
OC   Muroidea; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RX   MEDLINE=90158593; PubMed=2406566;
RA   Prendergast G.C., Diamond L.E., Dahl D., Cole M.D.;
RT   "The c-myc-regulated gene mr1 encodes plasminogen activator inhibitor
RT   1.";
RL   Mol. Cell. Biol. 10:1265-1269(1990).
RN   [2]
RP   PROTEIN SEQUENCE OF 23-29.
RX   PubMed=7523120;
RA   Lijnen H.R., van Hoef B., Beelen V., Collen D.;
RT   "Characterization of the murine plasma fibrinolytic system.";
RL   Eur. J. Biochem. 224:863-871(1994).
CC   -!- FUNCTION: This inhibitor acts as "bait" for tissue plasminogen
CC       activator, urokinase, and protein C. Its rapid interaction with
CC       TPA may function as a major control point in the regulation of
CC       fibrinolysis.
CC   -!- SUBUNIT: Interacts with VTN. Binds LRP1B; binding is followed by
CC       internalization and degradation (By similarity).
CC   -!- INTERACTION:
CC       Q5S248:Desc1; NbExp=1; IntAct=EBI-490898, EBI-490889;
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- SIMILARITY: Belongs to the serpin family.
CC   ---------------------------------------------------------------------
CC   This Swiss-Prot entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use as long as its content is in no way modified and this statement is not
CC   removed.
CC   ---------------------------------------------------------------------
DR   EMBL; M33960; AAA39887.1; -; mRNA.
DR   PIR; A34761; A34761.
DR   HSSP; P05121; 1DVM.
DR   SMR; P22777; 29-402.
DR   IntAct; P22777; -.
DR   Ensembl; ENSMUSG00000037411; Mus musculus.
DR   MGI; MGI:97608; Serpine1.
DR   GO; GO:0005615; C:extracellular space; TAS.
DR   GO; GO:0005515; F:protein binding; IPI.
DR   GO; GO:0045765; P:regulation of angiogenesis; IDA.
DR   InterPro; IPR000215; Prot_inh_serpin.
DR   PANTHER; PTHR11461; Prot_inh_serpin; 1.
DR   Pfam; PF00079; Serpin; 1.
DR   PROSITE; PS00284; SERPIN; 1.
KW   Direct protein sequencing; Glycoprotein; Plasma;
KW   Plasminogen activation; Protease inhibitor; Serine protease inhibitor;
KW   Serpin; Signal.
FT   SIGNAL        1     22       Probable.
FT   CHAIN        23    402       Plasminogen activator inhibitor-1.
FT   SITE        369    370       Reactive bond.
FT   CARBOHYD    232    232       N-linked (GlcNAc. . .) (Potential).
FT   CARBOHYD    288    288       N-linked (GlcNAc. . .) (Potential).
FT   CARBOHYD    352    352       N-linked (GlcNAc. . .) (Potential).
FT   CONFLICT     23     23       T -> M (in Ref. 2).
SQ   SEQUENCE   402 AA;  45170 MW;  765FF1659C70F68C CRC64;

  Query Match             78.5%;  Score 1626;  DB 1;  Length 402;
  Best Local Similarity   78.6%;  Pred. No. 3.1e-122;
  Matches  316;  Conservative   41;  Mismatches   45;  Indels    0;  Gaps    0;

Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
              |||| || ||:||| || |:|  :    |: || |:||||:|||| ||||||||||||
Db          1 MQMSSALACLILGLVLVSGKGFTLPLRESHTAHQATDFGVKVFQQVVQASKDRNVVFSPY 60

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
              ||:|||||||:|| |:|:::||| |||||:::|| | ||| | |||||||||:|||| |||
Db         61 GVSSVLAMLQMTTAGKTRRQIQDAMGFKVNEKGTAHALRQLSKELMGPWNKNEISTADAI 120

Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
              ||||||:|||||||||:||:: ||||||||||||||||||: ||||||::|| ||||
Db        121 FVQRDLELVQGFMPHFFKLFQTMVKQVDFSEVERARFIINDWVERHTKGMINDLLAKGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
              |:|||||||||||:|||||| ::|||:|||||||||||||||||:||||||||||||
Db        181 DELTRLVLVNALYFSGQWKTPFLEASTHQRLFHKSDGSTVSVPMMAQSNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
              |  ||::|||| ||||||||||:||:| |||||||| |:|| ||||||||||||:|||
Db        241 GLEYDVVELPYQRDTLSMFIAAPFEKDVHLSALTNILDAELIRQWKGNMTRLPRLLILPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
              |||||||||| ||| ||| |||     |||||||||| | |||||||:||||||||||
Db        301 FSLETEVDLRGPLEKLGMPDMFSATLADFTSLSDQEQLSVAQALQKVRIEVNESGTVASS 360

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
              ||| ::|||||| |:::|| |||||||||| |:|||||||||
Db        361 STAFVISARMAPTEMVIDRSFLFVVRHNPTETILFMGQVMEP 402


RESULT 9
Q8MI31_HORSE
ID   Q8MI31_HORSE PRELIMINARY;      PRT;   280 AA.
AC   Q8MI31;
DT   01-OCT-2002 (TrEMBLrel. 22, Created)
DT   01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT   01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE   Plasminogen activator inhibitor-1 (Fragment).
GN   Name=PAI-1;
OS   Equus caballus (Horse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Laurasiatheria; Perissodactyla; Equidae; Equus.
OX   NCBI_TaxID=9796;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RC   TISSUE=Equine IL-1 stimulated synovium;
RA   Takafuji V.A., Sharova L.V., Crisman M.V., Howard R.D.;
RL   Submitted (MAY-2002) to the EMBL/GenBank/DDBJ databases.
CC   -!- SIMILARITY: Belongs to the serpin family.
DR   EMBL; AF508034; AAM34252.1; -; mRNA.
DR   HSSP; P05121; 9PAI.
DR   SMR; Q8MI31; 1-280.
DR   GO; GO:0004867; F:serine-type endopeptidase inhibitor activity; IEA.
DR   InterPro; IPR000215; Prot_inh_serpin.
DR   Pfam; PF00079; Serpin; 1.
DR   SMART; SM00093; SERPIN; 1.
DR   PROSITE; PS00284; SERPIN; 1.
KW   Serpin.
FT   NON_TER       1      1
FT   NON_TER     280    280
SQ   SEQUENCE   280 AA;  31967 MW;  5DFFB7E77D8F4F61 CRC64;

  Query Match             60.6%;  Score 1256;  DB 2;  Length 280;
  Best Local Similarity   86.4%;  Pred. No. 1.2e-92;
  Matches  242;  Conservative   17;  Mismatches   21;  Indels    0;  Gaps    0;

Qy        107 GPWNKDEISTTDAIFVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTH 166
              ||||||||:| |||||||||||:|||| ||:|| :|||||||||||||||||||| :
Db          1 GPWNKDEITTADAIFVQRDLKLVKGFMPRFFKLFHTTVKQVDFSEVERARFIINDWVKKY 60

Qy        167 TKGMISNLLGKGAVDQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMA 226
              ||||||:|| :||||:|||||||||||||||||||:| || |||||||| || |||
Db         61 TKGMISDLLDEGAVDELTRLVLVNALYFNGQWKTPFPESGTHHRLFHKSDGSTASVSMMA 120

Qy        227 QTNKFNYTEFTTPDGHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWK 286
              ||||||| |||||||||||||||||||||||||||||||||||||||||| ||||| ||
Db        121 QTNKFNYAEFTTPDGHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILDAQLISQWK 180
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Qy        287 GNMTRLPRLLVLPKFSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQK 346
              :|||: ||||||||||:|||||:||||||||||||  ||||||:|:|| |||:|||||
Db        181 RSMTRVVRLLVLPKFSLESEVDLRRPLENLGMTDMFRPNQADFTSISNQELLHVSQALQK 240

Qy        347 VKIEVNESGTVASSSTAVIVSARMAPEEIIMDRPFLFVVR 386
              ||||| |||||||||||  : ||||||||||||||||||||
Db        241 VKIEVTESGTVASSSTGFVASARMAPEEIIMDRPFLFVVR 280


RESULT 10
O77772_RABIT
ID   O77772_RABIT PRELIMINARY;      PRT;   182 AA.
AC   O77772;
DT   01-NOV-1998 (TrEMBLrel. 08, Created)
DT   01-NOV-1998 (TrEMBLrel. 08, Last sequence update)
DT   01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE   Putative plasminogen activator inhibitor-1 (Fragment).
OS   Oryctolagus cuniculus (Rabbit).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Glires; Lagomorpha; Leporidae;
OC   Oryctolagus.
OX   NCBI_TaxID=9986;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RC   TISSUE=Lung;
RA   Yin J., Idell S.;
RL   Submitted (JUN-1998) to the EMBL/GenBank/DDBJ databases.
CC   -!- SIMILARITY: Belongs to the serpin family.
DR   EMBL; AF074325; AAC62632.1; -; mRNA.
DR   HSSP; P05121; 1LJ5.
DR   SMR; O77772; 1-182.
DR   GO; GO:0004867; F:serine-type endopeptidase inhibitor activity; IEA.
DR   InterPro; IPR000215; Prot_inh_serpin.
DR   Pfam; PF00079; Serpin; 1.
DR   SMART; SM00093; SERPIN; 1.
KW   Serpin.
FT   NON_TER       1      1
FT   NON_TER     182    182
SQ   SEQUENCE   182 AA;  20920 MW;  B2B6AEB6D92E217F CRC64;

  Query Match             41.7%;  Score 863;  DB 2;  Length 182;
  Best Local Similarity   88.5%;  Pred. No. 2.9e-61;
  Matches  161;  Conservative   13;  Mismatches    8;  Indels    0;  Gaps    0;

Qy        101 LYKELMGPWNKDEISTTDAIFVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIIN 160
              | |||||||||||||||||||||||||||||||||||:||||||:|:|||||||
Db          1 LSKELMGPWNKDEISTTDAIFVQRDLKLVQGFMPHFFRLFRTTVKQVDFSDVQRARFIIN 60

Qy        161 DWVKTHTKGMISNLLGKGAVDQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTV 220
              |||: |||||||:|||:||:|||| |:|||||||||||||  | || |:|||||||:
Db         61 DWVERHTKGMISDLLGEGAMDQLTLLLLVNALYFNGQWKTPFSKSGTHHRVFHKSDGSTI 120

Qy        221 SVPMMAQTNKFNYTEFTTPDGHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQ 280
              |||||||||||||||| ||||||||||||||:||||||||||:||||||||||||
Db        121 SVPMMAQTNKFNYTEFLTPDGHYYDILELPYHGETLSMFIAAPYEKQVPLSALTNILSAK 180

Qy        281 LI 282
              ||
Db        181 LI 182


RESULT 11
Q6DD81_XENLA
ID   Q6DD81_XENLA PRELIMINARY;      PRT;   395 AA.
AC   Q6DD81;
DT   25-OCT-2004 (TrEMBLrel. 28, Created)
DT   25-OCT-2004 (TrEMBLrel. 28, Last sequence update)
DT   25-OCT-2004 (TrEMBLrel. 28, Last annotation update)
DE   Serpine2-prov protein.
GN   Name=serpine2-prov;
OS   Xenopus laevis (African clawed frog).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae;
OC   Xenopodinae; Xenopus; Xenopus.
OX   NCBI_TaxID=8355;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RC   TISSUE=Spleen;
RX   MEDLINE=22341132; PubMed=12454917; DOI=10.1002/dvdy.10174;
RA   Klein S.L., Strausberg R.L., Wagner L., Pontius J., Clifton S.W.,
RA   Richardson P.;
RT   "Genetic and genomic tools for Xenopus research: The NIH Xenopus
RT   initiative.";
RL   Dev. Dyn. 225:384-391(2002).
RN   [2]
RP   NUCLEOTIDE SEQUENCE.
RC   TISSUE=Spleen;
RX   MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA   Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA   Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA   Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA   Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA   Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA   Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA   Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA   Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA   Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA   Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA   Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA   Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA   Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA   Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA   Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA   Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
RA   Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT   "Generation and initial analysis of more than 15,000 full-length human
RT   and mouse cDNA sequences.";
RL   Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN   [3]
RP   NUCLEOTIDE SEQUENCE.
RC   TISSUE=Spleen;
RA   Klein S., Gerhard D.S.;
RL   Submitted (JUL-2004) to the EMBL/GenBank/DDBJ databases.
CC   -!- SIMILARITY: Belongs to the serpin family.
DR   EMBL; BC077742; AAH77742.1; -; mRNA.
DR   GO; GO:0004867; F:serine-type endopeptidase inhibitor activity; IEA.
DR   InterPro; IPR000215; Prot_inh_serpin.
DR   Pfam; PF00079; Serpin; 1.
DR   SMART; SM00093; SERPIN; 1.
DR   PROSITE; PS00284; SERPIN; 1.
KW   Serpin.
SQ   SEQUENCE   395 AA;  43985 MW;  7B0CD19F934AB1EE CRC64;

  Query Match             40.7%;  Score 842;  DB 2;  Length 395;
  Best Local Similarity   45.0%;  Pred. No. 4.1e-59;
  Matches  170;  Conservative   68;  Mismatches  132;  Indels    8;  Gaps    4;

Qy         28 PSYVAHLASDFGVRVFQQVAQASKDRNVVFSPYGVASVLAMLQLTTGGETQQQIQAAMGF 87
              |  :  | || |::|| |||:     |:| ||:|::||| ||||   | |::|:   | :
Db         23 PLSLEELGSDIGIQVFNQVARTRPHENIVMSPHGISSVLGMLQLGADGRTKKQLMTVMRY 82

Qy         88 KIDDKGMAPALRHLYKELMGPWNKDEISTTDAIFVQRDLKLVQGFMPHFFRLFRSTVKQV 147
              ||::  :| :|:   : ::   ||| ::| : :|     |:   |:     :| | |: |
Db         83 KINE--VAKSLKKTNRAIVAKKNKDIVTTANGVFASSAFKVEGSFVYKNKDIFHSDVRSV 140

Qy        148 DFSEVERARFIINDWVKTHTKGMISNLLGKGAVD-QLTRLVLVNALYFNGQWKTPFPDSS 206
              || |   |  ||| |||  ||||  |:    :|  :|||||||||| | ||: |   :
Db        141 DFQEKNTAASIINQWVKNQTKGMIEGLISPELLDSSVTRLVLVNALYFKGLWKSRFHPEN 200

Qy        207 THRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPDGHYYDILELPYHGDTLSMFIAAPYEK 266
              | :| ||  ||    |||:|| : |     :||:| :|:::|||||| ::|| :| | ||
Db        201 TKKRTFHGPDGKDRQVPMLAQLSLFRSGSASTPNGLWYNVIELPYHGGSISMLVALPTEK 260

Qy        267 EVPLSALTNILSAQLISHWKGNMTRLPR--LLVLPKFSLETEVDLRKPLENLGMTDMFRQ 324
              ||||:   :| : :  |   ||  |:   |:|||||:| | ||::|| |||:|:||
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Db        261 STPLSAIIPHISTKTLQSW---MTMSPKRVQLILPKFSVEAEADLKEPLRNLGITEMFDV 317

Qy        325 FQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASSSTAVIVSARMAPEEIIMDRPFLFV 384

Db        318 SKANFAKISRSESLHVSHLLQKAKIEVNEEGTKASGATTAVLIARSSPRWFTVDRPFLFF 377

Qy        385 VRHNPTGTVLFMGQVMEP 402

Db        378 IRHNPTGAVLFTGQINKP 395


RESULT 12
GDN_MOUSE
ID   GDN_MOUSE      STANDARD;      PRT;   397 AA.
AC   Q07235; Q921T7;
DT   01-OCT-1994 (Rel. 30, Created)
DT   01-FEB-1996 (Rel. 33, Last sequence update)
DT   10-MAY-2005 (Rel. 47, Last annotation update)
DE   Glia derived nexin precursor (GDN) (Protease nexin I) (PN-1) (Serine
DE   protease-inhibitor-4).
GN   Name=Serpine2; Synonyms=Pi7, Pn1, Spi4;
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
OC   Muroidea; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RA   Belin D.;
RL   Submitted (SEP-1994) to the EMBL/GenBank/DDBJ databases.
RN   [2]
RP   NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA].
RX   MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA   Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA   Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA   Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA   Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA   Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA   Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA   Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA   Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA   Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA   Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA   Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA   Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA   Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA   Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA   Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA   Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
RA   Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT   "Generation and initial analysis of more than 15,000 full-length human
RT   and mouse cDNA sequences.";
RL   Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN   [3]
RP   NUCLEOTIDE SEQUENCE OF 1-366.
RC   STRAIN=BALB/c;
RX   MEDLINE=93259128; PubMed=8491179;
RA   Vassalli J.-D., Huarte J., Bosco D., Sappino A.P., Sappino N.,
RA   Velardi A., Wohlwend A., Erno H., Monard D., Belin D.;
RT   "Protease-nexin I as an androgen-dependent secretory product of the
RT   murine seminal vesicle.";
RL   EMBO J. 12:1871-1898(1993).
CC   -!- FUNCTION: Serine protease inhibitor with activity toward thrombin,
CC       trypsin, and urokinase. Promotes neurite extension by inhibiting
CC       thrombin. Binds heparin.
CC   -!- SUBCELLULAR LOCATION: Extracellular.
CC   -!- TISSUE SPECIFICITY: Most abundant in seminal vesicles.
CC   -!- SIMILARITY: Belongs to the serpin family.
CC   ---------------------------------------------------------------------
CC   This Swiss-Prot entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use as long as its content is in no way modified and this statement is not
CC   removed.
CC   ---------------------------------------------------------------------
DR   EMBL; X70296; CAA49777.1; -; mRNA.
DR   EMBL; BC010675; AAH10675.1; -; mRNA.
DR   EMBL; X70946; CAA50285.1; -; Genomic_DNA.
DR   PIR; I48717; I48717.
DR   HSSP; P05121; 1DB2.
DR   Ensembl; ENSMUSG00000026249; Mus musculus.
DR   MGI; MGI:101780; Serpine2.
DR   GO; GO:0005615; C:extracellular space; TAS.
DR   InterPro; IPR000215; Prot_inh_serpin.
DR   PANTHER; PTHR11461; Prot_Inh_serpin; 1.
DR   Pfam; PF00079; Serpin; 1.
DR   SMART; SM00093; SERPIN; 1.
DR   PROSITE; PS00284; SERPIN; 1.
KW   Developmental protein; Differentiation; Glycoprotein; Heparin-binding;
KW   Neurogenesis; Protease inhibitor; Serine protease inhibitor; Serpin;
KW   Signal.
FT   SIGNAL        1     19       By similarity.
FT   CHAIN        20    397       Glia derived nexin.
FT   SITE        364    365       Reactive bond (By similarity).
FT   CARBOHYD    159    159       N-linked (GlcNAc. . .) (Potential).
FT   CONFLICT    313    313       I -> V (in Ref. 2).
SQ   SEQUENCE   397 AA;  44207 MW;  B8EBAE3CA899D4A5 CRC64;

  Query Match             38.5%;  Score 796.5;  DB 1;  Length 397;
  Best Local Similarity   43.0%;  Pred. No. 1.9e-55;
  Matches  159;  Conservative   74;  Mismatches  134;  Indels    3;  Gaps    2;

Qy         34 LASDFGVRVFQQVAQASKDRNVVFSPYGVASVLAMLQLTTGGETQQQIQAAMGFKIDDKG 93

Db         30 LGSNTGIQVFNQIIKSRPHENVVVSPHGIASILGMLQLGADGKTKKQLSTVMRYNVN--G 87

Qy         94 MAPALRHLYKELMGPWNKDEISTTDAIFVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVE 153

Db         88 VGKVLKKINKAIVSKKNKDIVTVANAVFLRNGFKMEVPFAVRNKDVFQCEVQNVNFQDPA 147

Qy        154 RARFIINDWVKTHTKGMISNLLGKGAVD-QLTRLVLVNALYFNGQWKTPFPDSSTHRRLF 212

Db        148 SASESINFWVKNETRGMIDNLLSPNLIDGALTRLVLVNAVYFKGLWKSRFQPESTKKRTF 207

Qy        213 HKSDGSTVSVPMMAQTNKFNYTEFTTPDGHYYDILELPYHGDTLSMFIAAPYEKEVPLSA 272

Db        208 VAGDGKSYQVPMLAQLSVFRSGSTRTPNGLWYNFIELPYHGESISMLIALPTESSTPLSA 267

Qy        273 LTNILSAQLISHWKGNMTRLPRLLVLPKFSLETEVDLRKPLENLGMTDMFRQFQADFTSL 332

Db        268 IIPHITTKTIDSWMNTMVPKRMQLVLPKFTAVAQTDLKEPLKALGITEMFEPSKANFTKI 327

Qy        333 SDQEPLHVAQALQKVKIEVNESGTVASSSTAVIVSARMAPEEIIMDRPFLFVVRHNPTGT 392

Db        328 TRSESLHVSHILQKAKIEVSEDGTKASAATTAILIARSSPPWFIVDRPFLFSIRHNPTGA 387

Qy        393 VLFMGQVMEP 402

Db        388 ILFLGQVNKP 397


RESULT 13
Q543R5_MOUSE
ID   Q543R5_MOUSE PRELIMINARY;      PRT;   397 AA.
AC   Q543R5;
DT   13-SEP-2005 (TrEMBLrel. 31, Created)
DT   13-SEP-2005 (TrEMBLrel. 31, Last sequence update)
DT   13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
DE   16 days embryo head cDNA, RIKEN full-length enriched library,
DE   clone:C130010H12 product:serine (or cysteine) proteinase inhibitor,
DE   clade E (nexin, plasminogen activator inhibitor type 1), member 2,
DE   full insert sequence (12 days embryo spinal ganglion cDNA, RIKEN full-
DE   length enriched library, clone:D130035K01 product:serine (or cysteine)
DE   proteinase inhibitor, clade E (nexin, plasminogen activator inhibitor
DE   type 1), member 2, full insert sequence) (Adult male corpora
DE   quadrigemina cDNA, RIKEN full-length enriched library,
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DE   clone:B230326M24 product:serine (or cysteine) proteinase inhibitor,
DE   clade E (nexin, plasminogen activator inhibitor type 1), member 2,
DE   full insert sequence).
GN   Name=Serpine2;
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
OC   Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RC   STRAIN=C57BL/6J;
RC   TISSUE=Head, Spinal ganglion, and Corpora quadrigemina;
RX   MEDLINE=99279253; PubMed=10349636; DOI=10.1016/S0076-6879(99)03004-9;
RA   Carninci P., Hayashizaki Y.;
RT   "High-efficiency full-length cDNA cloning.";
RL   Meth. Enzymol. 303:19-44(1999).
RN   [2]
RP   NUCLEOTIDE SEQUENCE.
RC   STRAIN=C57BL/6J;
RC   TISSUE=Corpora quadrigemina, Head, and Spinal ganglion;
RX   MEDLINE=21085660; PubMed=11217851; DOI=10.1038/35055500;
RA   Kawai J., Shinagawa A., Shibata K., Yoshino M., Itoh M., Ishii Y.,
RA   Arakawa T., Hara A., Fukunishi Y., Konno H., Adachi J., Fukuda S.,
RA   Aizawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,
RA   Saito T., Okazaki Y., Gojobori T., Bono H., Kasukawa T., Saito R.,
RA   Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,
RA   Fleischmann W., Gaasterland T., Gissi C., King B., Kochiwa H.,
RA   Kuehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,
RA   Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T.,
RA   Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,
RA   Blake J., Boffelli D., Bojunga N., Carninci P., de Bonaldo M.F.,
RA   Brownstein M.J., Bult C., Fletcher C., Fujita M., Gariboldi M.,
RA   Gustincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Lee N.H.,
RA   Lyons P., Marchionni L., Mashima J., Mazzarelli J., Mombaerts P.,
RA   Nordone P., Ring B., Ringwald M., Rodriguez I., Sakamoto N.,
RA   Sasaki H., Sato K., Schoenbach C., Seya T., Shibata Y., Storch K.-F.,
RA   Suzuki H., Toyo-oka K., Wang K.H., Weitz C., Whittaker C., Wilming L.,
RA   Wynshaw-Boris A., Yoshida K., Hasegawa Y., Kawaji H., Kohtsuki S.,
RA   Hayashizaki Y.;
RT   "Functional annotation of a full-length mouse cDNA collection.";
RL   Nature 409:685-690(2001)..
RN   [3]
RP   NUCLEOTIDE SEQUENCE.
RC   STRAIN=C57BL/6J;
RC   TISSUE=Corpora quadrigemina, Head, and Spinal ganglion;
RX   MEDLINE=22354683; PubMed=12466851; DOI=10.1038/nature01266;
RA   Okazaki Y., Furuno M., Kasukawa T., Adachi J., Bono H., Kondo S.,
RA   Nikaido I., Osato N., Saito R., Suzuki H., Yamanaka I., Kiyosawa H.,
RA   Yagi K., Tomaru Y., Hasegawa Y., Nogami A., Schonbach C., Gojobori T.,
RA   Baldarelli R., Hill D.P., Bult C., Hume D.A., Quackenbush J.,
RA   Schriml L.M., Kanapin A., Matsuda H., Batalov S., Beisel K.W.,
RA   Blake J.A., Bradt D., Brusic V., Chothia C., Corbani L.E., Cousins S.,
RA   Dalla E., Dragani T.A., Fletcher C.F., Forrest A., Frazer K.S.,
RA   Gaasterland T., Gariboldi M., Gissi C., Godzik A., Gough J.,
RA   Grimmond S., Gustincich S., Hirokawa N., Jackson I.J., Jarvis E.D.,
RA   Kanai A., Kawaji H., Kawasawa Y., Kedzierski R.M., King B.L.,
RA   Konagaya A., Kurochkin I.V., Lee Y., Lenhard B., Lyons P.A.,
RA   Maglott D.R., Maltais L., Marchionni L., McKenzie L., Miki H.,
RA   Nagashima T., Numata K., Okido T., Pavan W.J., Pertea G., Pesole G.,
RA   Petrovsky N., Pillai R., Pontius J.U., Qi D., Ramachandran S.,
RA   Ravasi T., Reed J.C., Reed D.J., Reid J., Ring B.Z., Ringwald M.,
RA   Sandelin A., Schneider C., Semple C.A., Setou M., Shimada K.,
RA   Sultana R., Takenaka Y., Taylor M.S., Teasdale R.D., Tomita M.,
RA   Verardo R., Wagner L., Wahlestedt C., Wang Y., Watanabe Y., Wells C.,
RA   Wilming L.G., Wynshaw-Boris A., Yanagisawa M., Yang I., Yang L.,
RA   Yuan Z., Zavolan M., Zhu Y., Zimmer A., Carninci P., Hayatsu N.,
RA   Hirozane-Kishikawa T., Konno H., Nakamura M., Sakazume N., Sato K.,
RA   Shiraki T., Waki K., Kawai J., Aizawa K., Arakawa T., Fukuda S.,
RA   Hara A., Hashizume W., Imotani K., Ishii Y., Itoh M., Kagawa I.,
RA   Miyazaki A., Sakai K., Sasaki D., Shibata K., Shinagawa A.,
RA   Yasunishi A., Yoshino M., Waterston R., Lander E.S., Rogers J.,
RA   Birney E., Hayashizaki Y.;
RT   "Analysis of the mouse transcriptome based on functional annotation of
RT   60,770 full-length cDNAs.";
RL   Nature 420:563-573(2002).
RN   [4]
RP   NUCLEOTIDE SEQUENCE.
RC   STRAIN=C57BL/6J;
RC   TISSUE=Corpora quadrigemina, Head, and Spinal ganglion;
RX   MEDLINE=20499374; PubMed=11042159; DOI=10.1101/gr.145100;
RA   Carninci P., Shibata Y., Hayatsu N., Sugahara Y., Shibata K., Itoh M.,
RA   Konno H., Okazaki Y., Muramatsu M., Hayashizaki Y.;
RT   "Normalization and subtraction of cap-trapper-selected cDNAs to
RT   prepare full-length cDNA libraries for rapid discovery of new genes.";
RL   Genome Res. 10:1617-1630(2000).
RN   [5]
RP   NUCLEOTIDE SEQUENCE.
RC   STRAIN=C57BL/6J;
RC   TISSUE=Corpora quadrigemina, Head, and Spinal ganglion;
RX   MEDLINE=20530913; PubMed=11076861; DOI=10.1101/gr.152600;
RA   Shibata K., Itoh M., Aizawa K., Nagaoka S., Sasaki N., Carninci P.,
RA   Konno H., Akiyama J., Nishi K., Kitsunai T., Tashiro H., Itoh M.,
RA   Sumi N., Ishii Y., Nakamura S., Hazama M., Nishine T., Harada A.,
RA   Yamamoto R., Matsumoto H., Sakaguchi S., Ikegami T., Kashiwagi K.,
RA   Fujiwake S., Inoue K., Togawa Y., Izawa M., Ohara E., Watahiki M.,
RA   Yoneda Y., Ishikawa T., Ozawa K., Tanaka T., Matsuura S., Kawai J.,
RA   Okazaki Y., Muramatsu M., Inoue Y., Kira A., Hayashizaki Y.;
RT   "RIKEN integrated sequence analysis (RISA) system-384-format
RT   sequencing pipeline with 384 multicapillary sequencer.";
RL   Genome Res. 10:1757-1771(2000).
RN   [6]
RP   NUCLEOTIDE SEQUENCE.
RC   STRAIN=C57BL/6J;
RC   TISSUE=Corpora quadrigemina, Head, and Spinal ganglion;
RA   Adachi J., Aizawa K., Akimura T., Arakawa T., Bono H., Carninci P.,
RA   Fukuda S., Furuno M., Hanagaki T., Hara A., Hashizume W.,
RA   Hayashida K., Hayatsu N., Hiramoto K., Hiraoka T., Hirozane T.,
RA   Hori F., Imotani K., Ishii Y., Itoh M., Kagawa I., Kasukawa T.,
RA   Katoh H., Kawai J., Kojima Y., Kondo S., Konno H., Kouda M., Koya S.,
RA   Kurihara C., Matsuyama T., Miyazaki A., Murata M., Nakamura M.,
RA   Nishi K., Nomura K., Numazaki R., Ohno M., Ohsato N., Okazaki Y.,
RA   Saito R., Saitoh H., Sakai C., Sakai K., Sakazume N., Sano H.,
RA   Sasaki D., Shibata K., Shinagawa A., Shiraki T., Sogabe Y., Tagami M.,
RA   Tagawa A., Takahashi F., Takaku-Akahira S., Takeda Y., Tanaka T.,
RA   Tomaru A., Toya T., Yasunishi A., Muramatsu M., Hayashizaki Y.;
RL   Submitted (JUL-2001) to the EMBL/GenBank/DDBJ databases.
CC   -!- SIMILARITY: Belongs to the serpin family.
DR   EMBL; AK047856; BAC33176.1; -; mRNA.
DR   EMBL; AK051332; BAC34605.1; -; mRNA.
DR   EMBL; AK045954; BAC32546.1; -; mRNA.
DR   MGI; MGI:101780; Serpine2.
DR   GO; GO:0005615; C:extracellular space; TAS.
KW   Serpin.
SQ   SEQUENCE   397 AA;  44207 MW;  B8EBAE3CA899D4A5 CRC64;

  Query Match           38.5%;  Score 796.5;  DB 2;  Length 397;
  Best Local Similarity   43.0%;  Pred. No. 1.9e-55;
  Matches  159;  Conservative   74;  Mismatches  134;  Indels    3;  Gaps    2;

Qy         34 LASDFGVRVFQQVAQASKDRNVVFSPYGVASVLAMLQLTTGGETQQQIQAAMGFKIDDKG 93
              | |: |::|| |: ::    ||| ||:|:||:| ||||   |:|::|:   | : ::  |
Db         30 LGSNTGIQVFNQIIKSRPHENVVVSPHGIASILGMLQLGADGKTKKQLSTVMRYNVN--G 87

Qy         94 MAPALRHLYKELMGPWNKDEISTTDAIFVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVE 153
              :   |: : | ::   ||| ::  :|:|::   |:   |       :|:  |: |:| :
Db         88 VGKVLKKINKAIVSKKNKDIVTVANAVFLRNGFKMEVPFAVRNKDVFQCEVQNVNFQDPA 147

Qy        154 RARFIINDWVKTHTKGMISNLLGKGAVD-QLTRLVLVNALYFNGQWKTPFPDSSTHRRLF 212
                |   || |||  |:||| |||    :|  |||||||||:|| | ||: |   || :| |
Db        148 SASESINFWVKNETRGMIDNLLSPNLIDGALTRLVLVNAVYFKGLWKSRFQPESTKKRTF 207

Qy        213 HKSDGSTVSVPMMAQTNKFNYTEFTTPDGHYYDILELPYHGDTLSMFIAAPYEKEVPLSA 272
                 || :  |||:|| : |      ||:| :|: :|||||:::|| || | |   ||||
Db        208 VAGDGKSYQVPMLAQLSVFRSGSTRTPNGLWYNFIELPYHGESISMLIALPTESSTPLSA 267
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Qy        273 LTNILSAQLISHWKGNMTRLPRLLVLPKFSLETEVDLRKPLENLGMTDMFRQFQADFTSL 332
Db        268 IIPHITTKTIDSWMNTMVPKRMQLVLPKFTAVAQTDLKEPLKALGITEMFEPSKANFTKI 327

Qy        333 SDQEPLHVAQALQKVKIEVNESGTVASSSTAVIVSARMAPEEIIMDRPFLFVVRHNPTGT 392
Db        328 TRSESLHVSHILQKAKIEVSEDGTKASAATTAILIARSSPPWFIVDRPFLFSIRHNPTGA 387

Qy        393 VLFMGQVMEP 402
Db        388 ILFLGQVNKP 397


RESULT 14
Q4FJU1_MOUSE
ID   Q4FJU1_MOUSE PRELIMINARY;      PRT;   397 AA.
AC   Q4FJU1;
DT   13-SEP-2005 (TrEMBLrel. 31, Created)
DT   13-SEP-2005 (TrEMBLrel. 31, Last sequence update)
DT   13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
DE   Serpine2 protein.
GN   Name=Serpine2;
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
OC   Muroidea; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RA   Ebert L., Muenstermann E., Schatten R., Henze S., Bohn E.,
RA   Mollenhauer J., Wiemann S., Schick M., Korn B.;
RT   "Cloning of mouse full open reading frames in Gateway(R) system entry
RT   vector (pDONR201).";
RL   Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; CT010311; CAJ18519.1; -; mRNA.
SQ   SEQUENCE   397 AA;  44193 MW;  F7F5413CBEE36863 CRC64;

  Query Match             38.5%;  Score 796.5;  DB 2;  Length 397;
  Best Local Similarity   43.0%;  Pred. No. 1.9e-55;
  Matches  159;  Conservative   74;  Mismatches  134;  Indels    3;  Gaps    2;

Qy         34 LASDFGVRVFQQVAQASKDRNVVFSPYGVASVLAMLQLTTGGETQQQIQAAMGFKIDDKG 93
Db         30 LGSNTGIQVFNQIIKSRPHENVVVSPHGIASILGMLQLGADGKTKKQLSTVMRYNVN--G 87

Qy         94 MAPALRHLYKELMGPWNKDEISTTDAIFVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVE 153
Db         88 VGKVLKKINKAIVSKKNKDIVTVANAVFLRNGFKMEVPFAVRNKDVFQCEVQNVNFQDPA 147

Qy        154 RARFIINDWVKTHTKGMISNLLGKGAVD-QLTRLVLVNALYFNGQWKTPFPDSSTHRRLF 212
Db        148 SASESINFWVKNETRGMIDNLLSPNLIDGALTRLVLVNAVYFKGLWKSRFQPESTKKRTF 207

Qy        213 HKSDGSTVSVPMMAQTNKFNYTEFTTPDGHYYDILELPYHGDTLSMFIAAPYEKEVPLSA 272
Db        208 VAGDGKSYQVPMLAQLSVFRSGSTRTPNGLWYNFIELPYHGESISMLIALPTESSTPLSA 267

Qy        273 LTNILSAQLISHWKGNMTRLPRLLVLPKFSLETEVDLRKPLENLGMTDMFRQFQADFTSL 332
Db        268 IIPHITTKTIDSWMNTMVPKRMQLVLPKFTAVAQTDLKEPLKALGVTEMFEPSKANFTKI 327

Qy        333 SDQEPLHVAQALQKVKIEVNESGTVASSSTAVIVSARMAPEEIIMDRPFLFVVRHNPTGT 392
Db        328 TRSESLHVSHILQKAKIEVSEDGTKASAATTAILIARSSPPWFIVDRPFLFSIRHNPTGA 387

Qy        393 VLFMGQVMEP 402
Db        388 ILFLGQVNKP 397


RESULT 15
GDN_RAT
ID   GDN_RAT        STANDARD;      PRT;   397 AA.
AC   P07092;
DT   01-APR-1988 (Rel. 07, Created)
DT   01-APR-1988 (Rel. 07, Last sequence update)
DT   13-SEP-2005 (Rel. 48, Last annotation update)
DE   Glia derived nexin precursor (GDN) (Protease nexin I) (PN-1).
GN   Name=Serpine2; Synonyms=Pi7, Pn1;
OS   Rattus norvegicus (Rat).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
OC   Muroidea; Muridae; Murinae; Rattus.
OX   NCBI_TaxID=10116;
RN   [1]
RP   NUCLEOTIDE SEQUENCE.
RX   MEDLINE=88107544; PubMed=3427015;
RA   Sommer J., Gloor S.M., Rovelli G.F., Hofsteenge J., Nick H., Meier R.,
RA   Monard D.;
RT   "cDNA sequence coding for a rat glia-derived nexin and its homology to
RT   members of the serpin superfamily.";
RL   Biochemistry 26:6407-6410(1987).
RN   [2]
RP   PROTEIN SEQUENCE OF 82-96; 165-178 AND 317-333, AND HEPARIN BINDING.
RX   PubMed=1554734;
RA   Rovelli G., Stone S.R., Guidolin A., Sommer J., Monard D.;
RT   "Characterization of the heparin-binding site of glia-derived
RT   nexin/protease nexin-1.";
RL   Biochemistry 31:3542-3549(1992).
RN   [3]
RP   PROTEIN SEQUENCE OF 133-153 AND 347-397, AND FUNCTION.
RX   MEDLINE=90248459; PubMed=2337608;
RA   Nick H., Hofsteenge J., Shaw E., Rovelli G., Monard D.;
RT   "Functional sites of glia-derived nexin (GDN): importance of the site
RT   reacting with the protease.";
RL   Biochemistry 29:2417-2421(1990).
CC   -!- FUNCTION: Serine protease inhibitor with activity toward thrombin,
CC       trypsin, and urokinase. Promotes neurite extension by inhibiting
CC       thrombin. Binds heparin.
CC   -!- SUBCELLULAR LOCATION: Extracellular.
CC   -!- SIMILARITY: Belongs to the serpin family.
CC   ---------------------------------------------------------------------
CC   This Swiss-Prot entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use as long as its content is in no way modified and this statement is not
CC   removed.
CC   ---------------------------------------------------------------------
DR   EMBL; M17784; AAA41209.1; -; mRNA.
DR   PIR; B27496; B27496.
DR   HSSP; P05121; 1DB2.
DR   RGD; 3748; Serpine2.
DR   GO; GO:0004867; F:serine-type endopeptidase inhibitor activity; TAS.
DR   InterPro; IPR000215; Prot_inh_serpin.
DR   PANTHER; PTHR11461; Prot_inh_serpin; 1.
DR   Pfam; PF00079; Serpin; 1.
DR   SMART; SM00093; SERPIN; 1.
DR   PROSITE; PS00284; SERPIN; 1.
KW   Developmental protein; Differentiation; Direct protein sequencing;
KW   Glycoprotein; Heparin-binding; Neurogenesis; Protease inhibitor;
KW   Serine protease inhibitor; Serpin; Signal.
FT   SIGNAL        1     19       By similarity.
FT   CHAIN        20    397       Glia derived nexin.
FT   SITE        364    365       Reactive bond (Potential).
FT   CARBOHYD    159    159       N-linked (GlcNAc. . .) (Potential).
SQ   SEQUENCE   397 AA;  44063 MW;  11EF0790C7297646 CRC64;

  Query Match             38.2%;  Score 791.5;  DB 1;  Length 397;
  Best Local Similarity   42.7%;  Pred. No. 4.8e-55;
  Matches  158;  Conservative   72;  Mismatches  137;  Indels    3;  Gaps    2;

Qy         34 LASDFGVRVFQQVAQASKDRNVVFSPYGVASVLAMLQLTTGGETQQQIQAAMGFKIDDKG 93
Db         30 LGSDTGIQVFNQIIKSQPHENVVISPHGIASILGMLQLGADGRTKKQLSTVMRYNVN--G 87

Qy         94 MAPALRHLYKELMGPWNKDEISTTDAIFVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVE 153
```

```
Db         88 VGKVLKKINKAIVSKKNKDIVTVANAVFVRNGFKVEVPFAARNKEVFQCEVQSVNFQDPA 147

Qy        154 RARFIINDWVKTHTKGMISNLLGKGAVDQ-LTRLVLVNALYFNGQWKTPFPDSSTHRRLF 212

Db        148 SACDAINFWVKNETRGMIDNLLSPNLIDSALTKLVLVNAVYFKGLWKSRFQPENTKKRTF 207

Qy        213 HKSDGSTVSVPMMAQTNKFNYTEFTTPDGHYYDILELPYHGDTLSMFIAAPYEKEVPLSA 272

Db        208 VAGDGKSYQVPMLAQLSVFRSGSTKTPNGLWYNFIELPYHGESISMLIALPTESSTPLSA 267

Qy        273 LTNILSAQLISHWKGNMTRLPRLLVLPKFSLETEVDLRKPLENLGMTDMFRQFQADFTSL 332

Db        268 IIPHISTKTINSWMNTMVPKRMQLVLPKFTALAQTDLKEPLKALGITEMFEPSKANFAKI 327

Qy        333 SDQEPLHVAQALQKVKIEVNESGTVASSSTAVIVSARMAPEEIIMDRPFLFVVRHNPTGT 392

Db        328 TRSESLHVSHILQKAKIEVSEDGTKAAVVTTAILIARSSPPWFIVDRPFLFCIRHNPTGA 387

Qy        393 VLFMGQVMEP 402

Db        388 ILFLGQVNKP 397


Search completed: December 13, 2005, 09:08:39
Job time : 235 secs
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GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: December 13, 2005, 15:46:54 ; Search time 189 Seconds
(without alignments)
934.552 Million cell updates/sec

Title: US-10-506-406-2
Perfect score: 2071
Sequence: 1 MQMSPALTCLVLGLALVFGE.....FVVRHNPTGTVLFMGQVMEP 402

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 2443163 seqs, 439378781 residues

Total number of hits satisfying chosen parameters: 2443163

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : A_Geneseq_21:*
1: geneseqp1980s:*
2: geneseqp1990s:*
3: geneseqp2000s:*
4: geneseqp2001s:*
5: geneseqp2002s:*
6: geneseqp2003as:*
7: geneseqp2003bs:*
8: geneseqp2004s:*
9: geneseqp2005s:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	2071	100.0	402	2	AAW31587	Aaw31587 Human pla
2	2071	100.0	402	4	AAU04913	Aau04913 Human Pla
3	2071	100.0	402	4	AAB90794	Aab90794 Human she
4	2071	100.0	402	5	ABP65137	Abp65137 Hypoxia-r
5	2071	100.0	402	5	AAE14271	Aae14271 Plasminog
6	2071	100.0	402	5	ABP68605	Abp68605 Human pan
7	2071	100.0	402	6	AAE37131	Aae37131 Human pla
8	2071	100.0	402	6	ABR82199	Abr82199 Human pla
9	2071	100.0	402	7	ABR63123	Abr63123 Human pla
10	2071	100.0	402	7	ADF28929	Adf28929 Human pla
11	2071	100.0	402	7	ADF28771	Adf28771 Human pla
12	2071	100.0	402	7	ABW02690	Abw02690 Human pla
13	2071	100.0	402	7	ADN95544	Adn95544 Human BEC
14	2071	100.0	402	8	ADJ75605	Adj75605 Marker ge
15	2071	100.0	402	8	ADL35812	Adl35812 Human pla
16	2071	100.0	402	8	ADO05046	Ado05046 Human pla
17	2071	100.0	402	8	ABM80915	Abm80915 Tumour-as
18	2071	100.0	402	8	ADP23374	Adp23374 PRO polyp
19	2071	100.0	402	8	ADQ39257	Adq39257 Human myo
20	2071	100.0	402	8	ADQ39256	Adq39256 Human myo
21	2071	100.0	402	9	ADV70216	Adv70216 Tumor-ass
22	2071	100.0	402	9	AEA81039	Aea81039 Human pla
23	2071	100.0	402	9	AEB29725	Aeb29725 Human Ser
24	2067	99.8	402	2	AAR07986	Aar07986 Plasminog
25	2062	99.6	402	2	AAR23812	Aar23812 PAI-1 (Ar
26	2062	99.6	402	2	AAR23813	Aar23813 PAI-1 (Ar
27	2058	99.4	402	7	ADE48115	Ade48115 Human PAI
28	2030	98.0	402	1	AAP81179	Aap81179 Sequence
29	2009	97.0	422	8	ABM83091	Abm83091 Human dia
30	2009	97.0	422	8	ABM83092	Abm83092 Human dia
31	1993	96.2	386	7	ABR63124	Abr63124 Human pla
32	1970	95.1	383	1	AAP82007	Aap82007 Beta plas
33	1958	94.5	379	5	AAU97221	Aau97221 Wild-type
34	1957	94.5	379	2	AAW26718	Aaw26718 Plasminog
35	1957	94.5	379	4	AAU04926	Aau04926 Human Pla
36	1957	94.5	382	2	AAR08411	Aar08411 Modified
37	1955	94.4	379	2	AAW26717	Aaw26717 Plasminog
38	1955	94.4	379	4	AAU04925	Aau04925 Human Pla
39	1954	94.4	379	2	AAW26714	Aaw26714 Plasminog
40	1954	94.4	379	4	AAU04922	Aau04922 Human Pla
41	1952	94.3	379	2	AAW26710	Aaw26710 Plasminog
42	1952	94.3	379	4	AAU04918	Aau04918 Human Pla
43	1952	94.3	379	5	AAU97224	Aau97224 Human PAI
44	1952	94.3	379	5	AAU97230	Aau97230 Human PAI
45	1952	94.3	379	5	AAU97229	Aau97229 Human PAI

ALIGNMENTS

RESULT 1
AAW31587
ID AAW31587 standard; protein; 402 AA.
XX
AC AAW31587;
XX
DT 14-APR-1998 (first entry)
XX
DE Human plasminogen activator inhibitor type 1.
XX
KW Plasminogen activator inhibitor type 1; PAI-1; human; elastase inhibitor;
KW vitronectin; cell attachment; cell migration; cell proliferation;
KW emphysema; adult respiratory distress syndrome; acute lung inflammation;
KW alpha 1-antitrypsin deficiency; cystic fibrosis; atopic dermatitis;
KW pancreatitis; periodontal disease; arthritis; HIV; atherosclerosis;
KW restenosis; neointima; fibrosis; wound healing; tumour; metastasis;
KW psoriasis; thrombosis; angiogenesis; therapy.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT Peptide 1. .23
FT /label= Sig_peptide
FT Protein 24. .402
FT /label= Mat_protein
FT /note= "Claim 3"
FT Misc-difference 173
FT /note= "preferred subsitution site for protein
FT stabilisation"
FT Misc-difference 177
FT /note= "preferred substitution site for protein
FT stabilisation"
FT Misc-difference 342
FT /note= "preferred substitution site for protein
FT stabilisation"
FT Region 354. .375
FT /note= "reactive centre loop region"
FT Misc-difference 366
FT /label= P4
FT /note= "preferred substitution site to provide elastase
FT inhibitor mutant"
FT Misc-difference 369
FT /label= P1
FT /note= "preferred substitution site to provide elastase
FT inhibitor mutant"
FT Misc-difference 377
FT /note= "preferred substitution site for protein

```
FT                   substitution"
XX
PN   WO9739028-A1.
XX
PD   23-OCT-1997.
XX
PF   11-APR-1997;   97WO-US006071.
XX
PR   12-APR-1996;   96US-0015299P.
XX
PA   (AMNA-) AMERICAN NAT RED CROSS.
XX
PI   Lawrence DA,  Stefansson SP;
XX
DR   WPI; 1997-526399/48.
DR   N-PSDB; AAT97303.
XX
PT   Plasminogen activator-inhibitor type I mutant inhibits elastase - or has
PT   high affinity for vitronectin, for therapeutic inhibition of elastase or
PT   vitronectin-mediated cell attachment, migration etc.
XX
PS   Claim 3; Fig 4A; 144pp; English.
XX
CC   This polypeptide sequence comprises wild-type human plasminogen activator
CC   inhibitor type (PAI-1). Novel mutants (see AAW26710-25) of the PAI-1
CC   mature protein are claimed that inhibit elastase or other elastase-like
CC   proteases, or are inhibitors of vitronectin-dependent cell migration. The
CC   mutants are obtained by site-directed mutagenesis of the PAI-1 DNA
CC   sequence (see AAT97303) and expression in host cells, and have a range of
CC   therapeutic uses. Preferred mutants have amino acid substitutions in the
CC   reactive centre loop region (especially at position 343 and/or 346 of the
CC   mature protein), and may have additional stabilising amino acid
CC   substitutions at 1-4 of residues 150, 154, 319 and 354, and 1-5 of
CC   residues 333  335, 371, 372 and 91
XX
SQ   Sequence 402 AA;

  Query Match            100.0%;  Score 2071;  DB 2;  Length 402;
  Best Local Similarity  100.0%;  Pred. No. 4.4e-190;
  Matches  402;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120

Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
              |||||||||||||||||||||||||||||||||||||||||||
Db        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402


RESULT 2
AAU04913
ID   AAU04913 standard; protein; 402 AA.
XX
AC   AAU04913;
XX
DT   26-SEP-2001  (first entry)
XX
DE   Human Plasminogen activator inhibitor-1, PAI-1.
XX
KW   Human; Plasminogen activator inhibitor-1; PAI-1; serpin;
KW   immobilised enzyme; cystic fibrosis; acute respiratory distress syndrome;
KW   ARDS; HIV infection; Human immunodeficiency virus; prostate cancer;
KW   TNF-mediated inflammation; benign prostatic hypertrophy.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Peptide         1. .23
FT                   /label= Signal_peptide
FT                   /note= "Alternative signal peptide"
FT   Peptide         1. .21
FT                   /label= Signal_peptide
FT                   /note= "Alternative signal peptide"
FT   Protein         22. .402
FT                   /label= Mature_PAI-1 #1
FT   Protein         24. .402
FT                   /label= Mature_PAI_1 #2
FT                   /note= "Both mature forms are detectable in vivo"
FT   Region          357. .374
FT                   /label= Reactive_centre_loop
XX
PN   WO200138560-A2.
XX
PD   31-MAY-2001.
XX
PF   22-NOV-2000; 2000WO-US032315.
XX
PR   22-NOV-1999;   99US-0167553P.
XX
PA   (AMNA-) AMERICAN NAT RED CROSS.
XX
PI   Lawrence DA,  Day D;
XX
DR   WPI; 2001-441438/47.
DR   N-PSDB; AAS09460.
XX
PT   Detecting a functionally active form of an enzyme in a biological sample
PT   comprises contacting an enzyme inhibitor immobilized on a solid
PT   substrate.
XX
PS   Disclosure; Fig 5; 69pp; English.
XX
CC   The sequence represents human plasminogen activator inhibitor-1, PAI-1, a
CC   serine proteinase inhibitor or serpin. The protein is used to demonstrate
CC   the method of the invention which comprises detecting a functionally
CC   active form of an enzyme in a biological sample by contacting an enzyme
CC   inhibitor immobilised on a solid substrate with the biological sample and
CC   measuring the binding of the enzyme inhibitor to the active form of the
CC   enzyme by a detectable label, where the enzyme inhibitor specifically
CC   forms a covalent bond or binds with a dissociation constant of 1 x 10-9M
CC   or less with the active form of the enzyme. The present invention
CC   provides a sensitive method for the detection of a functionally active
CC   form of an enzyme in a biological sample. Human PAI-1 can be used to
CC   detect a number of enzymes including tissue plasminogen activator,
CC   urokinase, thrombin, plasmin, neutrophil elastase, pancreatic elastase,
CC   trypsin, chymotrypsin, cathepsin G and prostate specific antigen and as
CC   such can be used in methods to diagnose diseases such as cystic fibrosis,
CC   acute respiratory distress syndrome (ARDS), HIV infection, TNF-mediated
CC   inflammation, prostate cancer and benign prostatic hypertrophy
XX
SQ   Sequence 402 AA;

  Query Match            100.0%;  Score 2071;  DB 4;  Length 402;
  Best Local Similarity  100.0%;  Pred. No. 4.4e-190;
  Matches  402;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;
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Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120

Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
              |||||||||||||||||||||||||||||||||||||||||
Db        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
```

RESULT 3
AAB90794
ID AAB90794 standard; protein; 402 AA.
XX
AC AAB90794;
XX
DT 15-JUN-2001 (first entry)
XX
DE Human shear stress-response protein SEQ ID NO: 88.
XX
KW Human; shear stress-response protein; vascular disease; arteriosclerosis.
XX
OS Homo sapiens.
XX
PN WO200125427-A1.
XX
PD 12-APR-2001.
XX
PF 02-OCT-2000; 2000WO-JP006840.
XX
PR 01-OCT-1999; 99JP-00280976.
XX
PA (KYOW) KYOWA HAKKO KOGYO KK.
PA (NOJI/) NOJIMA H.
XX
PI Nojima H, Yoshisue H, Obayashi M, Ota T, Kawabata A, Sakurada K;
PI Kuga T, Sekine S, Nakamura Y, Sugano S;
XX
DR WPI; 2001-266308/27.
DR N-PSDB; AAH02917.
XX
PT DNA sequences, proteins encoded by them and antibodies against them
PT useful in diagnosis and treatment of vascular disease caused by
PT arteriosclerosis.
XX
PS Claim 60; Page 476-478; 678pp; Japanese.
XX
CC The present invention provides the protein and coding sequences of a
CC number of human shear stress response proteins. These are useful in the
CC diagnosis, treatment and screening of vascular diseases caused by
CC arteriosclerosis, including heart failure, post-PTCA restenosis and
CC hypertension
XX

SQ Sequence 402 AA;

Query Match 100.0%; Score 2071; DB 4; Length 402;
Best Local Similarity 100.0%; Pred. No. 4.4e-190;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120

Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
              |||||||||||||||||||||||||||||||||||||||||
Db        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
```

RESULT 4
ABP65137
ID ABP65137 standard; protein; 402 AA.
XX
AC ABP65137;
XX
DT 12-NOV-2002 (first entry)
XX
DE Hypoxia-regulated protein #11.
XX
KW Cytostatic; vasotropic; tranquiliser; antiatherosclerotic; gene therapy;
KW antiinflammatory; vulnerary; gynecological; ophthalmological; vaccine;
KW hypoxia; tumourigenesis; angiogenesis; apoptosis; cancer;
KW ischaemic condition; reperfusion injury; retinopathy; neonatal stress;
KW preeclapmsia; atherosclerosis; inflammatory condition; wound healing;
KW inflammation; erythropoiesis; hair loss; human.
XX
OS Homo sapiens.
XX
PN WO200246465-A2.
XX
PD 13-JUN-2002.
XX
PF 10-DEC-2001; 2001WO-GB005458.
XX
PR 08-DEC-2000; 2000GB-00030076.
PR 08-FEB-2001; 2001GB-00003156.
PR 25-OCT-2001; 2001GB-00025666.
XX
PA (OXFO-) OXFORD BIOMEDICA UK LTD.
XX
PI White J, Mundy CR, Ward NR, Krige D, Kingsman SM, Harris RA;
PI Rayner WN;
XX
DR WPI; 2002-627238/67.
XX
PT Identifying a gene involved in disease for treating hypoxia-regulated
PT conditions, comprises comparing the transcriptome/proteome of two cell

PT types under different conditions and identifying a differentially
PT regulated gene.
XX
PS Claim 35; Page 338; 538pp; English.
XX
CC The present invention relates to methods for identifying genes and
CC proteins that are implicated in a specific disease or physiological
CC condition. The method comprises comparing the transcriptome/proteome of a
CC specialised cell type implicated in a disease or condition with that of a
CC second specialised cell type, under two experimental conditions, and
CC identifying a gene that is differentially regulated in the two
CC specialised cell types under experimental conditions. ABV77873-ABV78116
CC and ABP65061-ABP65257 were identified using the methods of the invention.
CC The coding sequences and proteins are useful for treating a disease in a
CC patient, for manufacture of a medicament for treating hypoxia-regulated
CC conditions, and for regulating tumourigenesis, angiogenesis, apoptosis,
CC biological response to hypoxia conditions, or hypoxic-associated
CC pathology in a patient. The coding sequences and proteins are also useful
CC for monitoring the therapeutic treatment of a disease or physiological
CC condition, such as cancer, ischaemic conditions, reperfusion injury,
CC retinopathy, neonatal stress, preeclapmsia, atherosclerosis, inflammatory
CC conditions, wound healing, inflammation, erythropoiesis or hair loss
XX
SQ Sequence 402 AA;

Query Match 100.0%; Score 2071; DB 5; Length 402;
Best Local Similarity 100.0%; Pred. No. 4.4e-190;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
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Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
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              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
              |||||||||||||||||||||||||||||||||||||||||||
Db        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
```

RESULT 5
AAE14271
ID AAE14271 standard; protein; 402 AA.
XX
AC AAE14271;
XX
DT 07-AUG-2003 (revised)
DT 07-MAR-2002 (first entry)
XX
DE Plasminogen activator inhibitor (PAI) 1.
XX
KW Pancreas-derived plasminogen activator inhibitor; PAPAI;
KW plasminogen activator inhibitor; PAI; preeclampsia; wound healing;
KW intrauterine growth retardation; tumour cell invasion; arthritis;
KW metastasis; inflammation; inflammatory bowel disease; appendicitis;
KW systemic lupus erythematosus; ovulation; cytostatic; gene therapy;
KW prostatic involution; osteonecrosis; breast cancer; pregnancy.
XX
OS Unidentified.
XX
PN US6303338-B1.
XX
PD 16-OCT-2001.
XX
PF 19-FEB-1998; 98US-00026408.
XX
PR 16-AUG-1996; 96US-0024056P.
PR 15-AUG-1997; 97US-00934011.
XX
PA (HUMA-) HUMAN GENOME SCI INC.
XX
PI Ni J, Gentz RL, Ruben SM, Shi YE;
XX
DR WPI; 2002-033216/04.
XX
PT Isolated polynucleotides encoding the pancreas-derived plasminogen
PT activator inhibitor protein are useful to treat physiological and
PT pathological conditions including breast cancer, and to detect
PT pathological disorders.
XX
PS Disclosure; Fig 2; 50pp; English.
XX
CC The invention relates to nucleic acids encoding pancreas-derived
CC plasminogen activator inhibitor (PAPAI) protein. Plasminogen activator
CC inhibitor (PAI) 1 and 2 are involved in many physiological and
CC pathological processes, including normal pregnancy, preeclampsia,
CC intrauterine growth retardation, wound healing, tumour cell invasion and
CC metastasis, inflammation and arthritis, inflammatory bowel disease,
CC appendicitis, complications from systemic lupus erythematosus, ovulation
CC and prostatic involution and osteonecrosis. PAPAI DNA is used to treat
CC physiological and pathological conditions including breast cancer and to
CC detect pathological disorders. PAPAI DNA is used in gene therapy. The
CC present amino acid sequence is a PAI protein. (Updated on 07-AUG-2003 to
CC correct OS field.)
XX
SQ Sequence 402 AA;

Query Match 100.0%; Score 2071; DB 5; Length 402;
Best Local Similarity 100.0%; Pred. No. 4.4e-190;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120

Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
              |||||||||||||||||||||||||||||||||||||||||||
Db        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
```

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RESULT 6
ABP68605
ID   ABP68605 standard; protein; 402 AA.
XX
AC   ABP68605;
XX
DT   14-JAN-2003  (first entry)
XX
DE   Human pancreatic cancer expressed protein SEQ ID NO 154.
XX
KW   Human; pancreas; cancer; gene therapy; vaccine; immunostimulant;
KW   cytostatic; tumour.
XX
OS   Homo sapiens.
XX
PN   WO200260317-A2.
XX
PD   08-AUG-2002.
XX
PF   30-JAN-2002; 2002WO-US002781.
XX
PR   30-JAN-2001; 2001US-0265305P.
PR   31-JAN-2001; 2001US-0265682P.
PR   09-FEB-2001; 2001US-0267568P.
PR   21-MAR-2001; 2001US-0278651P.
PR   28-APR-2001; 2001US-0287112P.
PR   16-MAY-2001; 2001US-0291631P.
PR   12-JUL-2001; 2001US-0305484P.
PR   20-AUG-2001; 2001US-0313999P.
PR   27-NOV-2001; 2001US-0333626P.
XX
PA   (CORI-) CORIXA CORP.
XX
PI   Benson DR,  Kalos MD,  Lodes MJ,  Persing DH,  Hepler WT,  Jiang Y;
XX
DR   WPI; 2002-627435/67.
DR   N-PSDB; ABV94750.
XX
PT   New isolated polynucleotide and pancreatic tumor polypeptides, useful for
PT   diagnosing, preventing and/or treating cancer, particularly pancreatic
PT   cancer.
XX
PS   Claim 2; SEQ ID NO 154; 300pp + Sequence Listing; English.
XX
CC   The invention relates to an isolated polynucleotide (I) comprising: (a)
CC   any of a group of over 4000 nucleotide sequences (ABV94628-ABV99145); (b)
CC   complements of (a); (c) sequences consisting of at least 20 contiguous
CC   residues of (a); (d) sequences that hybridize to (a), under moderately
CC   stringent conditions; (e) sequences having at least 75% or 90% identity
CC   to (a); or (f) degenerate variants of (a). Polypeptides (ABP68596-
CC   ABP68637) encoded by (I) and oligonucleotide can be used to detect cancer
CC   in a patient and compositions comprising polypeptides, polynucleotides,
CC   antibodies, fusion proteins, T cell populations and antigen presenting
CC   cells expressing the polypeptide are useful in treating pancreatic cancer
CC   and stimulating an immune response. The polynucleotides can be used as
CC   probes or primers for nucleic acid hybridisation, in the design and
CC   preparation of ribozyme molecules for inhibiting expression of the tumour
CC   polypeptides and proteins in the tumour cells, in vaccines and for gene
CC   therapy. Note: The sequence data for this patent did not form part of the
CC   printed specification, but was obtained in electronic format directly
CC   from WIPO at ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 402 AA;

  Query Match             100.0%;  Score 2071;  DB 5;  Length 402;
  Best Local Similarity   100.0%;  Pred. No. 4.4e-190;
  Matches  402;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120

Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
              |||||||||||||||||||||||||||||||||||||||||||
Db        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402


RESULT 7
AAE37131
ID   AAE37131 standard; protein; 402 AA.
XX
AC   AAE37131;
XX
DT   07-AUG-2003  (first entry)
XX
DE   Human plasminogen-activator inhibitor type 1 (PAI-1) protein.
XX
KW   Osteoarthritis; rheumatoid arthritis; plasmin; plasminogen; human;
KW   urokinase-type plasminogen activator; uPA; degenerative joint disease;
KW   spondyloarthropathy; antisense-therapy; antibody therapy; osteopathic;
KW   urokinase-type plasminogen activator receptor; psoriatic arthritis;
KW   plasminogen-activator inhibitor type 1; PAI-1; uPAR.
XX
OS   Homo sapiens.
XX
PN   WO2003033009-A2.
XX
PD   24-APR-2003.
XX
PF   10-JUL-2002; 2002WO-IB005797.
XX
PR   10-JUL-2001; 2001US-0304461P.
PR   10-JUL-2001; 2001US-0304490P.
PR   13-JUL-2001; 2001US-0305182P.
XX
PA   (OMNI-) OMNIO AB.
XX
PI   Ny T,  Holmdahl R,  Li J;
XX
DR   WPI; 2003-393477/37.
DR   N-PSDB; AAD56136.
XX
PT   Treating or preventing arthritis e.g. osteoarthritis, rheumatoid
PT   arthritis in mammals, by administering inhibitors of plasmin,
PT   plasminogen, urokinase-type plasminogen activator or plasminogen-
PT   activator inhibitor type 1.
XX
PS   Disclosure; Page 82-83; 85pp; English.
XX
CC   The invention relates to a method for treating or preventing arthritis
CC   e.g. osteoarthritis, rheumatoid arthritis in mammals, by administering
CC   inhibitors of plasmin, plasminogen, urokinase-type plasminogen activator
CC   (uPA), plasminogen-activator inhibitor type 1 (PAI-1) and urokinase-type
CC   plasminogen activator receptor (uPAR). The method is useful for treating
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CC   or preventing arthritis caused by degenerative joint disease, preferably
CC   rheumatoid arthritis, psoriatic arthritis, infectious arthritis, juvenile
CC   rheumatoid arthritis, osteoarthritis and spondyloarthropathies in a
CC   mammal, especially a human. It is also useful for identifying agents for
CC   treating or preventing arthritis in a mammal and it is also useful in
CC   antisense-therapy and antibody therapy. The present sequence is human PAI
CC   -1 protein
XX
SQ   Sequence 402 AA;

  Query Match             100.0%;  Score 2071;  DB 6;  Length 402;
  Best Local Similarity   100.0%;  Pred. No. 4.4e-190;
  Matches  402;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120

Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
              |||||||||||||||||||||||||||||||||||||||||||
Db        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402


RESULT 8
ABR82199
ID   ABR82199 standard; protein; 402 AA.
XX
AC   ABR82199;
XX
DT   30-SEP-2003  (first entry)
XX
DE   Human plasminogen activator inhibitor 1 (PAI-1).
XX
KW   Human; plasminogen activator inhibitor; PAI-1; PAI; proteinase inhibitor;
KW   mutant proteinase inhibitor.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Peptide         1. .23
FT                   /label= signal
FT   Protein         24. .402
FT                   /label= PAI-1
FT                   /note= "plasminogen activator inhibitor 1"
XX
PN   WO2003053921-A2.
XX
PD   03-JUL-2003.
XX
PF   18-JUL-2002; 2002WO-US022822.
XX
PR   18-JUL-2001; 2001US-0305908P.
XX
PA   (AMNA-) AMERICAN NAT RED CROSS.
XX
PI   Lawrence DA,  Gorlatova N,  Crandall DL;
XX
DR   WPI; 2003-569214/53.
DR   N-PSDB; ACF06144.
XX
PT   Novel mutant proteinase inhibitor comprising a mutation in an epitope of
PT   amino acid sequence of wild-type proteinase inhibitor, useful for
PT   screening compounds that affect inhibitory activity of the proteinase
PT   inhibitor.
XX
PS   Claim 8; Fig 1; 46pp; English.
XX
CC   The present invention describes a mutant proteinase inhibitor (I)
CC   comprising a wild-type proteinase inhibitor amino acid sequence with at
CC   least 1 mutation in at least 1 epitope of the amino acid sequence, where
CC   the mutation alters the binding of the mutant proteinase inhibitor to an
CC   anti-proteinase inhibitor antibody as compared to the binding of the wild
CC   -type proteinase inhibitor to the anti-proteinase inhibitor antibody. (I)
CC   is useful for screening at least one compound that affects the activity
CC   of a proteinase inhibitor. (I) is also useful for screening at least one
CC   compound that affects the inhibitory activity of a proteinase inhibitor.
CC   The present sequence represents human plasminogen activator inhibitor 1
CC   (PAI-1), which is used in an example from the present invention
XX
SQ   Sequence 402 AA;

  Query Match             100.0%;  Score 2071;  DB 6;  Length 402;
  Best Local Similarity   100.0%;  Pred. No. 4.4e-190;
  Matches  402;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120

Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
              |||||||||||||||||||||||||||||||||||||||||||
Db        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402


RESULT 9
ABR63123
ID   ABR63123 standard; protein; 402 AA.
XX
AC   ABR63123;
XX
DT   18-DEC-2003  (first entry)
XX
DE   Human plasminogen activator inhibitor-1.
XX
KW   Plasminogen activator inhibitor-1; PAI-1; human; transgenic;
KW   thrombolytic; antiasthmatic; antiinflammatory; nootropic;
```

KW neuroprotective; antidepressant; nephrotropic; vulnerary;
KW antiseborrhoeic; dermatological; antiarteriosclerotic; hepatotropic.
XX
OS Homo sapiens.
XX
PN WO2003071267-A1.
XX
PD 28-AUG-2003.
XX
PF 19-FEB-2003; 2003WO-US005008.
XX
PR 19-FEB-2002; 2002US-0358061P.
XX
PA (UYVA-) UNIV VANDERBILT.
PA (DECL/) DECLERCK P J.
XX
PI Declerck PJ, Vaughan DE, Eren M;
XX
DR WPI; 2003-721694/68.
DR N-PSDB; ACF79498.
XX
PT Treating a warm-blooded vertebrate animal having a medical condition,
PT e.g. Alzheimer's disease, atherosclerosis, myelofibrosis or
PT glomerulosclerosis, comprises administering a plasminogen activator
PT inhibitor-1 inhibitor.
XX
PS Disclosure; Page 62-64; 91pp; English.
XX
CC The present sequence is the protein sequence of human plasminogen
CC activator inhibitor-1 (PAI-1). The PAI-1 gene can be used to produce
CC transgenic animals of the invention, useful for screening potential PAI-1
CC inhibitors. Such PAI-1 inhibitors can be used to treat a warm-blooded
CC vertebrate animal having a medical condition, e.g. alopecia, undesired
CC weight loss, Alzheimer's disease, systemic amyloidosis, myelofibrosis,
CC glomerulosclerosis, male pattern baldness, keloids, apocrine cysts, acne,
CC atherosclerosis, ageing, or a wound (claimed). A method of testing a
CC candidate composition for PAI-1 inhibition activity comprises
CC administering the composition to a transgenic animal having a PAI-1 gene
CC incorporated into its genome, and observing an ameliorating change in the
CC animal indicative of inhibition of PAI-1 activity, the change being an
CC improvement of a vascular thrombotic disorder, asthma, chronic
CC obstructive pulmonary disease, alopecia, undesired weight loss such as
CC anorexia, Alzheimer's disease, systemic amyloid deposition, systemic
CC amyloidosis, myelofibrosis, glomerulosclerosis, male pattern baldness,
CC keloids, apocrine cysts, acne, atherosclerosis, ageing,
CC hepatosplenomegaly, extramedullary haematopoiesis, or a wound (claimed)
XX
SQ Sequence 402 AA;

Query Match 100.0%; Score 2071; DB 7; Length 402;
Best Local Similarity 100.0%; Pred. No. 4.4e-190;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120

Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
```

```
Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
              |||||||||||||||||||||||||||||||||||||||||||
Db        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
```

RESULT 10
ADF28929
ID ADF28929 standard; protein; 402 AA.
XX
AC ADF28929;
XX
DT 12-FEB-2004 (first entry)
XX
DE Human plasminogen activator inhibitor 1 precursor.
XX
KW Human; plasminogen activator inhibitor 1; gene therapy; cytostatic;
KW antidiabetic; immunosuppressive; hepatotropic; adeno-associated virus.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT Peptide 1. .23
FT /label= Signal_peptide
FT Protein 24. .402
FT /label= Plasminogen activator inhibitor 1
FT
XX
PN WO2003089011-A1.
XX
PD 30-OCT-2003.
XX
PF 21-APR-2003; 2003WO-US012324.
XX
PR 19-APR-2002; 2002US-0374083P.
XX
PA (UYFL) UNIV FLORIDA.
XX
PI Atkinson MA, Flotte TR, Song S, Loiler SA;
XX
DR WPI; 2003-845502/78.
XX
PT New adeno-associated viral vector, useful in preparing a composition for
PT treating or preventing e.g., cancer, diabetes, or autoimmune, pancreatic
PT or liver disease.
XX
PS Example 4; SEQ ID NO 28; 183pp; English.
XX
CC The present sequence is that of human plasminogen activator inhibitor 1
CC precursor. This is an example of a therapeutic protein that can be
CC encoded by an adeno-associated virus (AAV) vector of the invention. Such
CC vectors comprise a promoter operably positioned upstream of a nucleic
CC acid encoding a biologically-active therapeutic mammalian serpin or
CC cytokine polypeptide, and optionally also include an enhancer sequence
CC and a post-transcriptional regulatory sequence. A recombinant AAV virion
CC comprising the vector, and a mammalian cell (preferably an endothelial,
CC islet, hepatocyte, pancreas, kidney, muscle, spleen, liver, heart, lung,
CC or brain cell) comprising the vector are claimed. A claimed composition
CC comprises the vector, the recombinant AAV virion, AAV viral particles, or
CC the mammalian cell, and is used in cancer, diabetes, autoimmune disease,
CC pancreatic disease or liver disease therapy. The composition is also used
CC in claimed methods for preventing type I diabetes, and for reducing the
CC rate of disease progression of type I diabetes, in a human.
XX
SQ Sequence 402 AA;

Query Match 100.0%; Score 2071; DB 7; Length 402;
Best Local Similarity 100.0%; Pred. No. 4.4e-190;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
```

```
Db          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
Db         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120

Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
Db        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
Db        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
Db        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
Db        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
Db        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
```

```
RESULT 11
ADF28771
ID   ADF28771 standard; protein; 402 AA.
XX
AC   ADF28771;
XX
DT   12-FEB-2004  (first entry)
XX
DE   Human plasminogen-activator inhibitor-1 (PAI-1).
XX
KW   Urokinase-type plasminogen activator; uPA;
KW   plasminogen-activator inhibitor-1; PAI-1; breast cancer; tumour;
KW   cancer therapy; human.
XX
OS   Homo sapiens.
XX
PN   WO2003082072-A2.
XX
PD   09-OCT-2003.
XX
PF   13-FEB-2003; 2003WO-US004538.
XX
PR   13-FEB-2002; 2002US-0356928P.
PR   09-AUG-2002; 2002US-0402311P.
XX
PA   (HARB/) HARBECK N.
PA   (KATE/) KATES R E.
PA   (SCHM/) SCHMITT M.
PA   (FOEK/) FOEKENS J A.
XX
PI   Harbeck N,  Kates RE,  Schmitt M,  Foekens JA;
XX
DR   WPI; 2003-803930/75.
DR   N-PSDB; ADF28770.
XX
PT   Selecting treatments for cancer, specifically breast cancer, based on
PT   levels of urokinase and plasminogen-activator inhibitor-1 in tissue.
XX
PS   Disclosure; SEQ ID NO 4; 133pp; English.
XX
CC   The invention relates to selecting a treatment regime with highest
CC   expected benefit to a patient with primary breast cancer. The method
CC   involves measuring the levels of urokinase-type plasminogen activator
CC   (uPA) and plasminogen-activator inhibitor-1 (PAI-1), or corresponding
CC   mRNA, in primary tumour tissue (or a sample); and classifying the patient
CC   as low risk (LR) if the uPA level is below a cut-off value of between the
CC   55 th . and 75 th percentile of normalized or analogous uPA in a
CC   randomized population of breast cancer patients, and if the PAI-1 level
CC   is lower than a cut-off value between the 61 st and 81 st percentile in
CC   the same population, or as high risk (HR) if the levels of uPA and PAI-1
CC   are above these cut-off values. The treatment of LR (or HR) patients is
CC   then selected as one that results in the highest expected benefit in a
CC   comparable population of LR (or HR) patients. The method is used: for
CC   selection of the most effective therapy, including one designed to
CC   prevent relapse; and to predict expected benefit, overall or disease-free
CC   survival in patients with cancer, particularly of the breast but also
CC   leukemia and plasmacytoma. The method can also be used: to predict the
CC   benefit of preventative treatment for relapse of cancer, especially where
CC   HR patients are treated with bisphosphonate drugs; for deciding whether
CC   or not to administer an aggressive or non-aggressive regime; and for
CC   deciding whether or not to administer chemotherapy in combination with
CC   hormone therapy (i.e. if the patient is LR, chemotherapy is not
CC   administered; in this case HR patients are those who are estrogen- and/or
CC   progesterone- receptor positive). The present sequence represents a human
CC   PAI-1 polypeptide.
XX
SQ   Sequence 402 AA;

  Query Match             100.0%;  Score 2071;  DB 7;  Length 402;
  Best Local Similarity   100.0%;  Pred. No. 4.4e-190;
  Matches  402;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
Db          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
Db         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120

Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
Db        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
Db        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
Db        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
Db        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
Db        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
```

```
RESULT 12
ABW02690
ID   ABW02690 standard; protein; 402 AA.
XX
AC   ABW02690;
XX
DT   12-FEB-2004  (first entry)
XX
DE   Human plasminogen activator inhibitor-1 (PAI-1) protein.
XX
KW   Plasminogen activator inhibitor-1; PAI-1; cardiovascular disease;
KW   fibrotic disease; gene therapy; antiinflammatory; human.
XX
OS   Homo sapiens.
XX
PN   US2003199463-A1.
XX
```

PD 23-OCT-2003.
XX
PF 23-APR-2002; 2002US-00128706.
XX
PR 23-APR-2002; 2002US-00128706.
XX
PA (ITES/) ITESCU S.
XX
PI Itescu S;
XX
DR WPI; 2003-852809/79.
DR N-PSDB; AAD64644, AAD64654.
XX
PT New catalytic nucleic acid that hybridizes to and specifically cleaves an
PT mRNA encoding a Plasminogen Activator Inhibitor-1, useful in preparing a
PT composition for treating e.g., cardiovascular or fibrotic disease.
XX
PS Disclosure; SEQ ID NO 6; 0pp; English.
XX
CC The present invention relates to a new catalytic nucleic acid that
CC hybridises to and specifically cleaves an mRNA encoding a plasminogen
CC activator inhibitor-1 (PAI-1). The invention is useful in preparing a
CC composition for treating cardiovascular or fibrotic disease. The
CC invention is also used in gene therapy. The present sequence is human
CC plasminogen activator inhibitor-1 (PAI-1) protein
XX
SQ Sequence 402 AA;

Query Match 100.0%; Score 2071; DB 7; Length 402;
Best Local Similarity 100.0%; Pred. No. 4.4e-190;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
Db 1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60

Qy 61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
Db 61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120

Qy 121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
Db 121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180

Qy 181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
Db 181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240

Qy 241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
Db 241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300

Qy 301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
Db 301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360

Qy 361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
Db 361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402

RESULT 13
ADN95544
ID ADN95544 standard; protein; 402 AA.
XX
AC ADN95544;
XX
DT 01-JUL-2004 (first entry)
XX
DE Human BEC/LEC-related protein sequence SeqID467.
XX
KW growth; differentiation; blood endothelial cell; BEC;
KW lymphatic endothelial cell; LEC; hereditary lymphoedema; VEGFR-3;
KW lymphatic growth agent; VEGF-C; VEGF-D; antiangiogenic; cytostatic;
KW vasotropic; antiinflammatory; gene therapy; endothelial cell disorder;
KW inflammatory disease; cancer metastasis; lymphatic system; human.
XX
OS Homo sapiens.
XX
PN WO2003080640-A1.
XX
PD 02-OCT-2003.
XX
PF 07-MAR-2003; 2003WO-US006900.
XX
PR 07-MAR-2002; 2002US-0363019P.
XX
PA (LUDW-) LUDWIG INST CANCER RES.
PA (LICN) LICENTIA LTD.
XX
PI Alitalo K, Makinen T, Petrova T, Saharinen P, Saharinen J;
XX
DR WPI; 2003-876899/81.
DR N-PSDB; ADN95545.
XX
PS Example 1; SEQ ID NO 467; 176pp; English.
XX
CC This invention relates to a method of differentially modulating the
CC growth or differentiation of blood endothelial cells (BEC) or lymphatic
CC endothelial cells (LEC) comprises contacting endothelial cells with a
CC composition comprising an agent that differentially modulates blood or
CC lymphatic endothelial cells. Treating hereditary lymphoedema comprises
CC identifying a human subject with lymphoedema and with a mutation in at
CC least one allele of a gene encoding a LEC protein, where the mutation
CC correlates with lymphoedema in human subjects, and with the proviso that
CC the LEC protein is not VEGFR-3; and administering to the subject a
CC composition comprising a lymphatic growth agent selected from VEGF-C or
CC VEGF-D polypeptides and polynucleotides. The invention may be useful for
CC the development of compounds with an antiangiogenic, cytostatic,
CC vasotropic or antiinflammatory activity or for gene therapy. The method
CC is useful in modulating the growth or differentiation of blood
CC endothelial cells or lymphatic endothelial cells, in treating hereditary
CC lymphoedema, in screening for an endothelial cell disorder or
CC predisposition to the disorder or in monitoring the efficacy or toxicity
CC of a drug on endothelial cells. The agent is useful in manufacturing a
CC medicament for the differential modulation of blood vessel endothelial
CC cell or lymphatic vessel endothelial cell growth or differentiation. The
CC lymphatic growth agent may also be used in manufacturing a medicament for
CC the treatment of hereditary lymphoedema resulting from a mutation in a
CC LEC gene or of other diseases involving the lymphatic vessels, such as
CC various inflammatory diseases and cancer metastasis via the lymphatic
CC system. The present sequence is that of a human LEC/BEC differentially
CC expressed protein which is related to the method of the invention.Note:
CC This sequence does not appear in the specification but was obtained by
CC the indexer using the source data given in table 14 of the specification.
XX
SQ Sequence 402 AA;

Query Match 100.0%; Score 2071; DB 7; Length 402;
Best Local Similarity 100.0%; Pred. No. 4.4e-190;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
Db 1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60

Qy 61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
Db 61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120

Qy 121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
Db 121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180

Qy 181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240

```
Db        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
              |||||||||||||||||||||||||||||||||||||||||
Db        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402


RESULT 14
ADJ75605
ID   ADJ75605 standard; protein; 402 AA.
XX
AC   ADJ75605;
XX
DT   20-MAY-2004  (first entry)
XX
DE   Marker gene related amino acid sequence SEQ ID NO:857.
XX
KW   bronchial asthma; chronic obstructive pulmonary disease;
KW   respiratory epithelial cell; interleukin-13; respiratory; antiasthmatic;
KW   gene therapy; marker.
XX
OS   Homo sapiens.
XX
PN   EP1394274-A2.
XX
PD   03-MAR-2004.
XX
PF   04-AUG-2003; 2003EP-00254857.
XX
PR   06-AUG-2002; 2002JP-00229312.
PR   20-MAR-2003; 2003JP-00077212.
XX
PA   (GENO-) GENOX RES INC.
XX
PI   Ohtani N,  Sugita Y,  Yamaya M,  Kubo H,  Nagai H,  Izuhara K;
XX
DR   WPI; 2004-193155/19.
XX
PT   Testing for bronchial asthma or chronic obstructive pulmonary disease by
PT   comparing the expression level of a marker gene in a biological sample
PT   from a subject with the expression level of the gene in a sample from a
PT   healthy subject.
XX
PS   Example 11; SEQ ID NO 857; 241pp; English.
XX
CC   The present invention describes a method of testing for bronchial asthma
CC   or chronic obstructive pulmonary disease. The method comprises
CC   determining the expression level of a marker gene in a biological sample
CC   from a subject, comparing the expression level determined with the
CC   expression level of the marker gene in a biological sample from a healthy
CC   subject, and judging whether the subject has bronchial asthma or chronic
CC   obstructive pulmonary disease. The marker gene comprises: (a) a group of
CC   genes (S1) whose expression levels increase when respiratory epithelial
CC   cells are stimulated with interleukin-13; or (b) a group of genes (S2)
CC   whose expression levels decrease when respiratory epithelial cells are
CC   stimulated with interleukin-13. Also described: (1) a reagent (I) for
CC   testing for bronchial asthma or chronic obstructive pulmonary disease;
CC   (2) a kit for screening for a candidate compound for a therapeutic agent
CC   to treat bronchial asthma or chronic obstructive pulmonary disease; (3)
CC   an animal model for bronchial asthma or chronic obstructive pulmonary
CC   disease; (4) an inducer that induces bronchial asthma in a mouse; (5) a
CC   method for producing an animal model for bronchial asthma or chronic
CC   obstructive pulmonary disease; (6) a therapeutic agent for bronchial
CC   asthma or chronic obstructive pulmonary disease, comprising the compound,
CC   a marker gene or an antisense nucleic acid corresponding to a portion of
CC   the marker gene, a ribozyme, a polynucleotide that suppresses the
CC   expression of the gene through an RNAi effect or an antibody recognising
CC   a protein encoded by a marker gene; and (7) a DNA chip for testing for
CC   bronchial asthma or a chronic obstructive pulmonary disease, on which a
CC   probe has been immobilised to assay a marker gene. (I) has respiratory
CC   and antiasthmatic activities, and can be used in gene therapy. The method
CC   is useful for testing for or screening for a therapeutic agent for
CC   bronchial asthma or chronic obstructive pulmonary disease. The present
CC   sequence is used in the exemplification of the present invention.
XX
SQ   Sequence 402 AA;

  Query Match             100.0%;  Score 2071;  DB 8;  Length 402;
  Best Local Similarity   100.0%;  Pred. No. 4.4e-190;
  Matches  402;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120

Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
              |||||||||||||||||||||||||||||||||||||||||
Db        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402


RESULT 15
ADL35812
ID   ADL35812 standard; protein; 402 AA.
XX
AC   ADL35812;
XX
DT   03-JUN-2004  (first entry)
XX
DE   Human plasminogen activator inhibitor 1 (SERPINE1, PAI-1) protein.
XX
KW   angiogenesis; cytostatic; cancer; gene therapy; human;
KW   plasminogen activator inhibitor 1; SERPINE1; PAI-1.
XX
OS   Homo sapiens.
XX
PN   WO2004019893-A2.
XX
PD   11-MAR-2004.
XX
PF   02-SEP-2003; 2003WO-US027523.
XX
PR   30-AUG-2002; 2002US-00231956.
XX
PA   (RIGE-) RIGEL PHARM INC.
XX
PI   Lorens JB,  Bogenberger J,  Holland S,  Xu W;
XX
DR   WPI; 2004-239116/22.
```

DR N-PSDB; ADL35811.
XX
PT Identifying a compound that modulates angiogenesis for treating e.g., cancer comprises contacting the compound with a nucleic acid or polypeptide and determining the functional effect of the compound upon the nucleic acid or polypeptide.
XX
PS Claim 19; SEQ ID NO 420; 245pp; English.
XX
CC The invention relates to a novel method for identifying a compound that modulates angiogenesis which comprises contacting the compound with a nucleic acid, or a polypeptide encoded by a nucleic acid, that hybridises under stringent conditions to a second nucleic acid and determining the functional effect of the compound upon the nucleic acid or polypeptide. The method of the invention has cytostatic applications and may be useful for identifying a compound that modulates angiogenesis for treating cancer or for use during gene therapy procedures. The current sequence is that of an angiogenesis-related human protein of the invention.
XX
SQ Sequence 402 AA;

Query Match 100.0%; Score 2071; DB 8; Length 402;
Best Local Similarity 100.0%; Pred. No. 4.4e-190;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120

Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
              |||||||||||||||||||||||||||||||||||||||||
Db        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
```

RESULT 16
ADO05046
ID ADO05046 standard; protein; 402 AA.
XX
AC ADO05046;
XX
DT 29-JUL-2004 (first entry)
XX
DE Human plasminogen activator inhibitor (PAI)-1 protein.
XX
KW Plasminogen activator inhibitor; PAI; human.
XX
OS Homo sapiens.
XX
PN US2004086978-A1.
XX
PD 06-MAY-2004.
XX
PF 29-JUL-2003; 2003US-00628395.
XX
PR 16-AUG-1996; 96US-0024056P.
PR 15-AUG-1997; 97US-00934011.
PR 19-FEB-1998; 98US-00026408.
PR 12-JUL-2001; 2001US-00902684.
XX
PA (NIJJ/) NI J.
PA (GENT/) GENTZ R L.
PA (RUBE/) RUBEN S M.
PA (SHIY/) SHI Y E.
XX
PI Ni J, Gentz RL, Ruben SM, Shi YE;
XX
DR WPI; 2004-356204/33.
XX
PT Producing an antibody that specifically binds to pancreas-derived plasminogen activator inhibitor (PAPAI) polypeptide comprises introducing the polypeptide to the animal, and recovering the antibody.
XX
PS Disclosure; SEQ ID NO 3; 51pp; English.
XX
CC The present invention provides pancreas-derived plasminogen activator inhibitor (PAPAI) polypeptides and their encoding polynucleotides. The invention is useful for producing an antibody that specifically binds to pancreas-derived plasminogen activator inhibitor (PAPAI) polypeptide. The present sequence is human plasminogen activator inhibitor (PAI) protein.
XX
SQ Sequence 402 AA;

Query Match 100.0%; Score 2071; DB 8; Length 402;
Best Local Similarity 100.0%; Pred. No. 4.4e-190;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120

Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
              |||||||||||||||||||||||||||||||||||||||||
Db        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
```

RESULT 17
ABM80915
ID ABM80915 standard; protein; 402 AA.
XX
AC ABM80915;
XX
DT 18-NOV-2004 (first entry)
XX
DE Tumour-associated antigenic target (TAT) polypeptide PRO2604, SEQ:2362.
XX
KW Tumour-associated antigenic target; TAT; human; overexpression; cancer;

```
KW   tumour; diagnosis; cell proliferative disorder; breast cancer;
KW   colorectal cancer; lung cancer; ovarian cancer; liver cancer;
KW   central nervous system cancer; bladder cancer; pancreatic cancer;
KW   cervical cancer; melanoma; leukaemia; hybridisation probe;
KW   chromosome identification; chromosome mapping; gene mapping;
KW   gene therapy; cytostatic.
XX
OS   Homo sapiens.
XX
PN   WO2004030615-A2.
XX
PD   15-APR-2004.
XX
PF   29-SEP-2003; 2003WO-US028547.
XX
PR   02-OCT-2002; 2002US-0414971P.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Wu TD,  Zhang Z,  Zhou Y;
XX
DR   WPI; 2004-347921/32.
DR   N-PSDB; ACN38690.
XX
PT   New tumor-associated antigenic target polypeptides and nucleic acids,
PT   useful in preparing a medicament for treating or detecting a
PT   proliferative disorder, e.g. breast, lung, colorectal, ovarian or
PT   prostate cancer or tumor.
XX
PS   Claim 12; SEQ ID NO 2362; 7273pp; English.
XX
CC   The invention relates to human tumour-associated antigenic target (TAT)
CC   polypeptides, and their related nucleic acids. The TAT polypeptides are
CC   overexpressed in cancer tissues compared to normal tissues, and may thus
CC   serve as effective targets for the diagnosis and treatment of cancer in
CC   mammals. The invention also relates to nucleic acid and polypeptide
CC   sequences at least 80% identical to the TAT nucleic acids and
CC   polypeptides; expression vectors and host cells comprising a TAT nucleic
CC   acid; an antibody specific for a TAT polypeptide; a peptide or organic
CC   molecule which binds to a TAT polypeptide; fusion proteins comprising a
CC   TAT polypeptide; and methods and compositions for the treatment or
CC   diagnosis of cancer in mammals. TAT polypeptides, nucleic acids,
CC   antibodies, antagonists, binding molecules and compositions are useful
CC   for diagnosing or treating a cell proliferative disorder associated with
CC   increased TAT expression, particularly cancers such as breast cancer,
CC   colorectal cancer, lung cancer, ovarian cancer, liver cancer, bladder
CC   cancer, pancreatic cancer, cervical cancer, cancers of the central
CC   nervous system, melanoma and leukaemia. TAT nucleic acids may further be
CC   used as hybridisation probes, in chromosome and gene mapping, in
CC   chromosome identification and in gene therapy. The present sequence
CC   represents a TAT polypeptide of the invention
XX
SQ   Sequence 402 AA;

  Query Match             100.0%;  Score 2071;  DB 8;  Length 402;
  Best Local Similarity   100.0%;  Pred. No. 4.4e-190;
  Matches  402;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120

Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
              |||||||||||||||||||||||||||||||||||||||||||
Db        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402


RESULT 18
ADP23374
ID   ADP23374 standard; protein; 402 AA.
XX
AC   ADP23374;
XX
DT   18-NOV-2004  (first entry)
XX
DE   PRO polypeptide SEQ ID NO:552.
XX
KW   PRO; antiinflammatory; antiarthritic; antirheumatic; immunosuppressive;
KW   osteopathic; antidiabetic; dermatological; antipsoriatic; antiallergic;
KW   antiasthmatic; hepatotropic; respiratory; gene therapy; immune system.
XX
OS   Unidentified.
XX
PN   WO2004041170-A2.
XX
PD   21-MAY-2004.
XX
PF   30-OCT-2003; 2003WO-US034312.
XX
PR   01-NOV-2002; 2002US-0423394P.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Clark H,  Schoenfeld J,  Van Lookeren M,  Williams PM,  Wood WI;
PI   Wu TD;
XX
DR   WPI; 2004-419628/39.
DR   N-PSDB; ADP23373.
XX
PT   New PRO polypeptides and polynucleotides, useful for treating e.g.
PT   erythematosus, rheumatoid arthritis, diabetes mellitus, immune-mediated
PT   renal disease, or demyelinating diseases of the central or peripheral
PT   nervous system.
XX
PS   Claim 7; SEQ ID NO 552; 2940pp; English.
XX
CC   The invention relates to a novel isolated nucleic acid and the PRO
CC   polypeptide encoded by it. A protein of the invention has
CC   antiinflammatory, antiarthritic, antirheumatic, immunosuppressive,
CC   osteopathic, antidiabetic, dermatological, antipsoriatic, antiallergic,
CC   antiasthmatic, hepatotropic, and respiratory activity. A polynucleotide
CC   of the invention may have a use in gene therapy. The PRO polypeptide, its
CC   agonist, antagonist, or antibody that specifically binds to the
CC   polypeptide is useful for treating an immune related disorder such as
CC   systemic lupus erythematosus, rheumatoid arthritis, osteoarthritis,
CC   juvenile chronic arthritis, a spondyloarthropathy, systemic sclerosis, an
CC   idiopathic inflammatory myopathy, Sjogren's syndrome, systemic
CC   vasculitis, sarcoidosis, autoimmune haemolytic anaemia, autoimmune
CC   thrombocytopenia, thyroiditis, diabetes mellitus, immune-mediated renal
CC   disease, a demyelinating disease of the central or peripheral nervous
CC   system, idiopathic demyelinating polyneuropathy, Guillain-Barre syndrome,
CC   a chronic inflammatory demyelinating polyneuropathy, a hepatobiliary
CC   disease, infectious or autoimmune chronic active hepatitis, primary
CC   biliary cirrhosis, granulomatous hepatitis, sclerosing cholangitis,
CC   inflammatory bowel disease, gluten-sensitive enteropathy, Whipple's
CC   disease, an autoimmune or immune-mediated skin disease, a bullous skin
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```
CC   disease, erythema multiforme, contact dermatitis, psoriasis, an allergic
CC   disease, asthma, allergic rhinitis, atopic dermatitis, food
CC   hypersensitivity, urticaria, an immunologic disease of the lung,
CC   eosinophilic pneumonia, idiopathic pulmonary fibrosis, hypersensitivity
CC   pneumonitis, a transplantation associated disease, graft rejection or
CC   graft-versus-host disease. The present sequence represents a PRO protein
CC   of the invention.
XX
SQ   Sequence 402 AA;

  Query Match             100.0%;  Score 2071;  DB 8;  Length 402;
  Best Local Similarity   100.0%;  Pred. No. 4.4e-190;
  Matches  402;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120

Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
              |||||||||||||||||||||||||||||||||||||||||
Db        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402


RESULT 19
ADQ39257
ID   ADQ39257 standard; protein; 402 AA.
XX
AC   ADQ39257;
XX
DT   18-NOV-2004  (first entry)
XX
DE   Human myocardial infarction-associated gene derived protein, SEQ ID 920.
XX
KW   Myocardial infarction; detection; single nucleotide polymorphism; SNP;
KW   cardiant; gene therapy; human.
XX
OS   Homo sapiens.
XX
PN   WO2004058052-A2.
XX
PD   15-JUL-2004.
XX
PF   22-DEC-2003; 2003WO-US040978.
XX
PR   20-DEC-2002; 2002US-0434778P.
PR   10-MAR-2003; 2003US-0453135P.
PR   30-APR-2003; 2003US-0466412P.
PR   23-SEP-2003; 2003US-0504955P.
XX
PA   (APPL-) APPLERA CORP.
XX
PI   Cargill M,  Devlin JJ,  Iakoubova O;
XX
DR   WPI; 2004-533949/51.
DR   N-PSDB; ADQ38429.
XX
PT   Identifying an individual who has an altered risk for developing
PT   myocardial infarction by detecting a single nucleotide polymorphism in
PT   the individual's nucleic acids.
XX
PS   Claim 10; SEQ ID NO 920; 145pp; English.
XX
CC   The invention relates to a novel method for identifying an individual who
CC   has an altered risk for developing myocardial infarction. The method
CC   comprises detecting a single nucleotide polymorphism (SNP) in any one of
CC   the nucleotide sequences given in the specification in the individual's
CC   nucleic acids, where the presence of the SNP is correlated with an
CC   altered risk for myocardial infarction in the individual. The invention
CC   further comprises: an isolated nucleic acid molecule comprising at least
CC   8 contiguous nucleotides where one of the nucleotides is an SNP given in
CC   the specification or its complement and encoding any one of the amino
CC   acid sequences given in the specification; an isolated polypeptide
CC   comprising an amino acid sequence given in the specification; an antibody
CC   that specifically binds to the polypeptide or its antigen-binding
CC   fragment; an amplified polynucleotide containing an SNP given in the
CC   specification and which is between about 16 and 1000 nucleotides in
CC   length; a kit for detecting an SNP in a nucleic acid, comprising the
CC   polynucleotide, a buffer and an enzyme; a method of detecting an SNP in a
CC   nucleic acid molecule; a method of detecting a variant polypeptide; and a
CC   method for identifying an agent useful in treating or preventing
CC   myocardial infarction. The novel detection method has cardiant activity.
CC   The nucleic acids of the invention may be used in gene therapy. The
CC   method is useful in identifying an individual who has an increased or
CC   decreased risk for developing myocardial infarction and for preparing a
CC   composition for treating or preventing myocardial infarction. This
CC   sequence represents the protein of a human myocardial infarction-
CC   associated gene containing one or more SNP's of the invention. Note: This
CC   sequence was not shown in the specification. The sequence has come from
CC   an electronic sequence listing downloaded from the WIPO website.
XX
SQ   Sequence 402 AA;

  Query Match             100.0%;  Score 2071;  DB 8;  Length 402;
  Best Local Similarity   100.0%;  Pred. No. 4.4e-190;
  Matches  402;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120

Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
              |||||||||||||||||||||||||||||||||||||||||
Db        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402


RESULT 20
```

```
ADQ39256
ID   ADQ39256 standard; protein; 402 AA.
XX
AC   ADQ39256;
XX
DT   18-NOV-2004  (first entry)
XX
DE   Human myocardial infarction-associated gene derived protein, SEQ ID 919.
XX
KW   Myocardial infarction; detection; single nucleotide polymorphism; SNP;
KW   cardiant; gene therapy; human.
XX
OS   Homo sapiens.
XX
PN   WO2004058052-A2.
XX
PD   15-JUL-2004.
XX
PF   22-DEC-2003; 2003WO-US040978.
XX
PR   20-DEC-2002; 2002US-0434778P.
PR   10-MAR-2003; 2003US-0453135P.
PR   30-APR-2003; 2003US-0466412P.
PR   23-SEP-2003; 2003US-0504955P.
XX
PA   (APPL-) APPLERA CORP.
XX
PI   Cargill M,  Devlin JJ,  Iakoubova O;
XX
DR   WPI; 2004-533949/51.
DR   N-PSDB; ADQ38428.
XX
PT   Identifying an individual who has an altered risk for developing
PT   myocardial infarction by detecting a single nucleotide polymorphism in
PT   the individual's nucleic acids.
XX
PS   Claim 10; SEQ ID NO 919; 145pp; English.
XX
CC   The invention relates to a novel method for identifying an individual who
CC   has an altered risk for developing myocardial infarction. The method
CC   comprises detecting a single nucleotide polymorphism (SNP) in any one of
CC   the nucleotide sequences given in the specification in the individual's
CC   nucleic acids, where the presence of the SNP is correlated with an
CC   altered risk for myocardial infarction in the individual. The invention
CC   further comprises: an isolated nucleic acid molecule comprising at least
CC   8 contiguous nucleotides where one of the nucleotides is an SNP given in
CC   the specification or its complement and encoding any one of the amino
CC   acid sequences given in the specification; an isolated polypeptide
CC   comprising an amino acid sequence given in the specification; an antibody
CC   that specifically binds to the polypeptide or its antigen-binding
CC   fragment; an amplified polynucleotide containing an SNP given in the
CC   specification and which is between about 16 and 1000 nucleotides in
CC   length; a kit for detecting an SNP in a nucleic acid, comprising the
CC   polynucleotide, a buffer and an enzyme; a method of detecting an SNP in a
CC   nucleic acid molecule; a method of detecting a variant polypeptide; and a
CC   method for identifying an agent useful in treating or preventing
CC   myocardial infarction. The novel detection method has cardiant activity.
CC   The nucleic acids of the invention may be used in gene therapy. The
CC   method is useful in identifying an individual who has an increased or
CC   decreased risk for developing myocardial infarction and for preparing a
CC   composition for treating or preventing myocardial infarction. This
CC   sequence represents the protein of a human myocardial infarction-
CC   associated gene containing one or more SNP's of the invention. Note: This
CC   sequence was not shown in the specification. The sequence has come from
CC   an electronic sequence listing downloaded from the WIPO website.
XX
SQ   Sequence 402 AA;

  Query Match             100.0%;  Score 2071;  DB 8;  Length 402;
  Best Local Similarity   100.0%;  Pred. No. 4.4e-190;
  Matches  402;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120

Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
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Db        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
              |||||||||||||||||||||||||||||||||||||||||||
Db        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402


RESULT 21
ADV70216
ID   ADV70216 standard; protein; 402 AA.
XX
AC   ADV70216;
XX
DT   10-MAR-2005  (first entry)
XX
DE   Tumor-associated antigenic target polypeptide TAT458.
XX
KW   cytostatic; diagnosis; therapy; tumor;
KW   tumor-associated antigenic target polypeptide; TAT.
XX
OS   Homo sapiens.
XX
PN   WO2004112829-A2.
XX
PD   29-DEC-2004.
XX
PF   21-MAY-2004; 2004WO-US016121.
XX
PR   23-MAY-2003; 2003US-0473238P.
PR   27-FEB-2004; 2004US-0548299P.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Phillips H;
XX
DR   WPI; 2005-048766/05.
DR   N-PSDB; ADV70121.
XX
PT   Treating a mammal having a tumor of glial origin comprising cells that
PT   express a type A or B glial tumor antigen by contacting the cells with a
PT   composition comprising first and second binding agents.
XX
PS   Disclosure; SEQ ID NO 140; 374pp; English.
XX
CC   The invention describes a method of treating a mammal having a tumor of
CC   glial origin comprising cells that express a type A or B glial tumor
CC   antigen comprises contacting the cells with a composition of: a first
CC   binding agent comprising a first antibody, oligopeptide or organic
CC   molecule that binds to a type A or B glial tumor antigen; and a second
CC   binding agent comprising a second antibody, oligopeptide or organic
CC   molecule that binds to a type B or A glial tumor antigen. Also described
CC   is a method of determining the presence of a type A or B glial tumor in a
```

```
CC   mammal. The method is useful in treating a mammal having a tumor of glial
CC   origin comprising cells that express a type A or B glial tumor antigen.
CC   This sequence represents a human tumor-associated antigenic target
CC   polypeptide.
XX
SQ   Sequence 402 AA;

  Query Match             100.0%;  Score 2071;  DB 9;  Length 402;
  Best Local Similarity   100.0%;  Pred. No. 4.4e-190;
  Matches  402;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
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Db          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
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Db         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120

Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
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Db        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
              |||||||||||||||||||||||||||||||||||||||||||
Db        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402


RESULT 22
AEA81039
ID   AEA81039 standard; protein; 402 AA.
XX
AC   AEA81039;
XX
DT   08-SEP-2005  (first entry)
XX
DE   Human plasminogen activator inhibitor-1 protein SEQ ID NO:6.
XX
KW   antisense therapy; RNA interference; plasminogen activator inhibitor-1;
KW   vasotropic; thrombolytic; hemostatic; vascular disease;
KW   thrombocyte disorder.
XX
OS   Homo sapiens.
XX
PN   US2005148527-A1.
XX
PD   07-JUL-2005.
XX
PF   24-FEB-2005; 2005US-00512496.
XX
PR   23-APR-2002; 2002US-00128706.
PR   23-APR-2003; 2003WO-US012767.
XX
PA   (ITES/) ITESCU S.
XX
PI   Itescu S;
XX
DR   WPI; 2005-478099/48.
DR   N-PSDB; AEA81038, AEA81050.
XX
PT   New catalytic nucleic acid that specifically cleaves an mRNA encoding a
PT   plasminogen activator inhibitor-1 (PAI-1), useful for treating vascular,
PT   thrombotic or hemostatic disorders.
XX
PS   Disclosure; SEQ ID NO 6; 53pp; English.
XX
CC   The invention relates to a catalytic nucleic acid that specifically
CC   cleaves an mRNA encoding a plasminogen activator inhibitor-1 (PAI-1).
CC   Also described: (1) a pharmaceutical composition comprising the catalytic
CC   nucleic acid, oligonucleotide, or inhibitor of PAI-1 expression, and a
CC   carrier; (2) a method of treating a cardiovascular disease in a subject;
CC   (3) a method of treating a vascular disease in a subject where the
CC   disease is treated by reducing thrombin or fibrin production; (4) a
CC   method of treating a vascular disease in a subject where the vascular
CC   disease is treated by inhibition of PAI-1 expression; (5) a method of
CC   inducing neovascularization in a heart tissue of a subject; (6) a method
CC   of inhibiting smooth muscle cell proliferation in a tissue of a subject;
CC   (7) a method of inhibiting thrombin and fibrin deposition in a heart or
CC   tissue of a subject; (8) a method of treating a subject suffering from a
CC   thrombotic disease or disorder, or hemostatic disorder where the disease
CC   or disorder is associated with elevated expression of PAI-1; and (9) a
CC   method of treating a disorder of a subject's heart involving loss of
CC   cardiomyocytes. The nucleic acid, compositions and methods are useful for
CC   treating vascular, thrombotic or hemostatic disorders. The present
CC   sequence represents human PAI-1, which is used in the exemplification of
CC   the present invention.
XX
SQ   Sequence 402 AA;

  Query Match             100.0%;  Score 2071;  DB 9;  Length 402;
  Best Local Similarity   100.0%;  Pred. No. 4.4e-190;
  Matches  402;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
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Db          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120

Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
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Db        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402


RESULT 23
AEB29725
ID   AEB29725 standard; protein; 402 AA.
XX
AC   AEB29725;
XX
DT   06-OCT-2005  (first entry)
XX
DE   Human Ser/Cys proteinase inhibitor, member 1 SEQ ID 76.
XX
KW   Epidermal growth factor receptor; EGFR signaling; genetic marker;
KW   drug screening; cancer; tumor; hyperproliferation; cytostatic;
```

KW immune disorder; immunomodulator; cell proliferation; cell signaling.
XX
OS Homo sapiens.
XX
PN WO2005067667-A2.
XX
PD 28-JUL-2005.
XX
PF 07-JAN-2005; 2005WO-US000638.
XX
PR 07-JAN-2004; 2004US-0535151P.
XX
PA (BRIM) BRISTOL-MYERS SQUIBB CO.
XX
PI Clark EA, Ford SK, Yoganathan S, Jackson DG;
XX
DR WPI; 2005-522719/53.
DR N-PSDB; AEB29660.
XX
PT Identifying mammal that will respond therapeutically to cancer treatment
PT by administering epidermal growth factor receptor modulator and comparing
PT biomarker level such as lymphocyte antigen 75 or Cadherin 17, LI cadherin
PT (liver-intestine).
XX
PS Claim 1; SEQ ID NO 76; 264pp; English.
XX
CC The invention relates to identifying a mammal that will respond
CC therapeutically to a method of treating cancer by administering an
CC epidermal growth factor receptor (EGFR) modulator comprising measuring
CC level of at least one biomarker nucleic acids appearing as AEB29650-
CC AEB29715 and/or any of the proteins appearing as AEB29716-AEB29774 given
CC in the specification as Table 1. The method of identifying a mammal that
CC will respond therapeutically to a method of treating cancer by
CC administering an epidermal growth factor receptor (EGFR) modulator cited
CC above further comprises measuring in the mammal the level of at least one
CC biomarker listed above, exposing the mammal to the EGFR modulator,
CC measuring in the mammal the level of the at least one biomarker, where a
CC difference in the level of the at least one biomarker measured in step
CC (b) compared to the level of the at least one biomarker measured in step
CC (a) indicates that the mammal will respond therapeutically to the method
CC of treating cancer. Also disclosed are EGFR receptors, nucleic acids,
CC antibodies, microarrays and kits for determining or predicting
CC susceptibility or resistance to a treatment. The method is used for
CC determining sensitivity in patients to allow development of
CC individualized genetic profiles which aid in treating diseases and
CC disorders based on patient response at a molecular level, including
CC cancers, tumors, immunological disorders, proliferative disorders and
CC cell signaling disorders. The present sequence is one of the EGFR
CC signaling-related biomarker proteins.
XX
SQ Sequence 402 AA;

Query Match 100.0%; Score 2071; DB 9; Length 402;
Best Local Similarity 100.0%; Pred. No. 4.4e-190;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
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Db          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120

Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
              ||||||||||||||||||||||||||||||||||||||||||
Db        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
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Search completed: December 13, 2005, 15:50:16
Job time : 195 secs

GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: December 13, 2005, 09:01:15 ; Search time 47 Seconds
(without alignments)
707.141 Million cell updates/sec

Title: US-10-506-406-2
Perfect score: 2071
Sequence: 1 MQMSPALTCLVLGLALVFGE.....FVVRHNPTGTVLFMGQVMEP 402

Scoring table: BLOSUM62
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Searched: 572060 seqs, 82675679 residues

Total number of hits satisfying chosen parameters: 572060

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	2071	100.0	402	1	US-08-315-461-7	Sequence 7, Appli
2	2071	100.0	402	2	US-08-840-204-2	Sequence 2, Appli
3	2071	100.0	402	2	US-09-026-408-3	Sequence 3, Appli
4	2071	100.0	402	2	US-09-324-494A-2	Sequence 2, Appli
5	2071	100.0	402	2	US-09-902-684-3	Sequence 3, Appli
6	2071	100.0	402	2	US-10-628-395-3	Sequence 3, Appli
7	2007	96.9	390	1	US-08-121-714-6	Sequence 6, Appli
8	2007	96.9	390	1	US-08-477-108A-6	Sequence 6, Appli
9	2007	96.9	390	1	US-08-477-112-6	Sequence 6, Appli
10	2007	96.9	390	4	PCT-US93-08322-6	Sequence 6, Appli
11	1958	94.5	379	2	US-08-840-204-3	Sequence 3, Appli
12	1958	94.5	379	2	US-09-324-494A-3	Sequence 3, Appli
13	1784	86.1	402	2	US-08-948-997-4	Sequence 4, Appli
14	1784	86.1	402	2	US-09-348-817A-4	Sequence 4, Appli
15	1784	86.1	402	2	US-09-722-292-4	Sequence 4, Appli
16	791.5	38.2	397	2	US-08-948-997-5	Sequence 5, Appli
17	791.5	38.2	397	2	US-09-348-817A-5	Sequence 5, Appli
18	791.5	38.2	397	2	US-09-722-292-5	Sequence 5, Appli
19	771.5	37.3	397	6	5187089-9	Patent No. 5187089
20	770.5	37.2	397	6	5457090-2	Patent No. 5457090
21	770.5	37.2	397	6	5495001-7	Patent No. 5495001
22	768.5	37.1	397	2	US-09-660-107-1	Sequence 1, Appli
23	765.5	37.0	397	6	5187089-10	Patent No. 5187089
24	762.5	36.8	397	6	5457090-4	Patent No. 5457090
25	762	36.8	398	6	5187089-6	Patent No. 5187089
26	760	36.7	398	6	5495001-9	Patent No. 5495001
27	759.5	36.7	397	6	5187089-2	Patent No. 5187089
28	757.5	36.6	397	6	5187089-11	Patent No. 5187089
29	756	36.5	398	6	5187089-7	Patent No. 5187089
30	750	36.2	398	6	5187089-4	Patent No. 5187089
31	748	36.1	398	6	5187089-5	Patent No. 5187089
32	656.5	31.7	360	2	US-10-037-417-67	Sequence 67, Appl
33	633	30.6	377	2	US-10-037-417-66	Sequence 66, Appl
34	620	29.9	410	2	US-09-348-817A-3	Sequence 3, Appli
35	620	29.9	410	2	US-09-722-292-3	Sequence 3, Appli
36	593	28.6	410	2	US-08-948-997-2	Sequence 2, Appli
37	593	28.6	410	2	US-09-348-817A-2	Sequence 2, Appli
38	593	28.6	410	2	US-09-722-292-2	Sequence 2, Appli
39	586.5	28.3	407	2	US-08-948-997-3	Sequence 3, Appli
40	569.5	27.5	407	1	US-08-487-823B-2	Sequence 2, Appli
41	569.5	27.5	407	1	US-08-997-040-2	Sequence 2, Appli
42	569.5	27.5	407	1	US-09-203-237-2	Sequence 2, Appli
43	530	25.6	392	2	US-09-026-408-2	Sequence 2, Appli
44	530	25.6	392	2	US-09-902-684-2	Sequence 2, Appli
45	530	25.6	392	2	US-10-628-395-2	Sequence 2, Appli

ALIGNMENTS

RESULT 1
US-08-315-461-7
; Sequence 7, Application US/08315461
; Patent No. 5639726
; GENERAL INFORMATION:
; APPLICANT: Lawrence, Daniel A.
; APPLICANT: Ginsburg, David
; APPLICANT: Shore, Joseph D.
; APPLICANT: Fay, William P.
; APPLICANT: Olson, Steven T.
; APPLICANT: Francis-Chmura, Anne-Marie
; APPLICANT: Daniel T. Eitzman
; APPLICANT: Dell Paielli
; TITLE OF INVENTION: Peptide Mediated Enhancement Of
; TITLE OF INVENTION: Thrombolysis: Methods and Compositions
; NUMBER OF SEQUENCES: 7
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Arnold, White & Durkee
; STREET: P.O. Box 4433
; CITY: Houston
; STATE: TX
; COUNTRY: USA
; ZIP: 77210
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/315,461
; FILING DATE: Concurrently Herewith
; CLASSIFICATION: 530
; ATTORNEY/AGENT INFORMATION:
; NAME: Parker, David L.
; REGISTRATION NUMBER: 32,165
; REFERENCE/DOCKET NUMBER: UMIC:006
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (512) 418-3000
; TELEFAX: (512) 474-7577
; INFORMATION FOR SEQ ID NO: 7:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 402 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-315-461-7

Query Match 100.0%; Score 2071; DB 1; Length 402;
Best Local Similarity 100.0%; Pred. No. 4.6e-204;

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  Matches  402;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
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Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
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Db        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
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Db        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
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Db        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402


RESULT 2
US-08-840-204-2
; Sequence 2, Application US/08840204
; Patent No. 6103498
;  GENERAL INFORMATION:
;    APPLICANT:  LAWRENCE, DANIEL A.
;    APPLICANT:  STEFANSSON, STEINGRIMUR P.
;    TITLE OF INVENTION:  MUTANT PLASMINOGEN ACTIVATOR-INHIBITOR
;    TITLE OF INVENTION:  TYPE 1 (PAI-1) AND USES THEREOF
;    NUMBER OF SEQUENCES:  10
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  MORRISON & FOERSER
;      STREET:  2000 PENNSYLVANIA AVENUE, NW
;      CITY:  WASHINGTON
;      STATE:  DC
;      COUNTRY:  USA
;      ZIP:  20006-1812
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/840,204
;      FILING DATE:
;      CLASSIFICATION:  435
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  LIVNAT, SHMUEL
;      REGISTRATION NUMBER:  33,949
;      REFERENCE/DOCKET NUMBER:  30807-20004.00
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (202) 887-1500
;      TELEFAX:  (202) 822-0168
;      TELEX:  90-4030 MRSNFOERSWSH
;  INFORMATION FOR SEQ ID NO:  2:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  402 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
US-08-840-204-2
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  Query Match           100.0%;  Score 2071;  DB 2;  Length 402;
  Best Local Similarity  100.0%;  Pred. No. 4.6e-204;
  Matches  402;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120

Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
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Db        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402


RESULT 3
US-09-026-408-3
; Sequence 3, Application US/09026408
; Patent No. 6303338
;  GENERAL INFORMATION:
;    APPLICANT:  Ni et al.
;    TITLE OF INVENTION:  PANCREAS-DERIVED PLASMINOGEN ACTIVATOR
;    TITLE OF INVENTION:  INHIBITOR
;    NUMBER OF SEQUENCES:  15
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
;      STREET:  1100 NEW YORK AVENUE, SUITE 600
;      CITY:  WASHINGTON
;      STATE:  DC
;      COUNTRY:  USA
;      ZIP:  20005-3934
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/026,408
;      FILING DATE:  Herewith
;      CLASSIFICATION:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/934,011
;      FILING DATE:  15-AUG-1997
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/024,056
;      FILING DATE:  16-AUG-1996
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  STEFFE, ERIC K.
;      REGISTRATION NUMBER:  36,688
;      REFERENCE/DOCKET NUMBER:  1488.0300002
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  202-371-2600
;      TELEFAX:  202-371-2540
;  INFORMATION FOR SEQ ID NO:  3:
;    SEQUENCE CHARACTERISTICS:
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;      LENGTH:  402 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
US-09-026-408-3

  Query Match             100.0%;  Score 2071;  DB 2;  Length 402;
  Best Local Similarity   100.0%;  Pred. No. 4.6e-204;
  Matches  402;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120

Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
              |||||||||||||||||||||||||||||||||||||||||||
Db        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402


RESULT 4
US-09-324-494A-2
; Sequence 2, Application US/09324494A
; Patent No. 6489143
; GENERAL INFORMATION:
;  APPLICANT: LAWRENCE, Daniel A
;  APPLICANT:  STEFANSSON, Steingrimur P
;  TITLE OF INVENTION: MUTANT PLASMINOGEN ACTIVATOR-INHIBITOR TYPE 1 (PAI-1) AND USES TH
;  FILE REFERENCE: 30523/167
;  CURRENT APPLICATION NUMBER: US/09/324,494A
;  CURRENT FILING DATE:  1999-06-02
;  NUMBER OF SEQ ID NOS: 29
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 2
;   LENGTH: 402
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-324-494A-2

  Query Match             100.0%;  Score 2071;  DB 2;  Length 402;
  Best Local Similarity   100.0%;  Pred. No. 4.6e-204;
  Matches  402;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120

Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
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Db        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402


RESULT 5
US-09-902-684-3
; Sequence 3, Application US/09902684
; Patent No. 6649738
;  GENERAL INFORMATION:
;       APPLICANT: Ni et al.
;       TITLE OF INVENTION: PANCREAS-DERIVED PLASMINOGEN ACTIVATOR
;                           INHIBITOR
;       NUMBER OF SEQUENCES: 15
;       CORRESPONDENCE ADDRESS:
;            ADDRESSEE: STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
;            STREET: 1100 NEW YORK AVENUE, SUITE 600
;            CITY: WASHINGTON
;            STATE: DC
;            COUNTRY: USA
;            ZIP: 20005-3934
;       COMPUTER READABLE FORM:
;            MEDIUM TYPE: Floppy disk
;            COMPUTER: IBM PC compatible
;            OPERATING SYSTEM: PC-DOS/MS-DOS
;            SOFTWARE: PatentIn Release #1.0, Version #1.30
;       CURRENT APPLICATION DATA:
;            APPLICATION NUMBER: US/09/902,684
;            FILING DATE: 12-Jul-2001
;            CLASSIFICATION: <Unknown>
;       PRIOR APPLICATION DATA:
;            APPLICATION NUMBER: 09/026,408
;            FILING DATE: <Unknown>
;            APPLICATION NUMBER: US 60/024,056
;            FILING DATE: 16-AUG-1996
;       ATTORNEY/AGENT INFORMATION:
;            NAME: STEFFE, ERIC K.
;            REGISTRATION NUMBER: 36,688
;            REFERENCE/DOCKET NUMBER: 1488.0300002
;       TELECOMMUNICATION INFORMATION:
;            TELEPHONE: 202-371-2600
;            TELEFAX: 202-371-2540
;   INFORMATION FOR SEQ ID NO: 3:
;       SEQUENCE CHARACTERISTICS:
;            LENGTH: 402 amino acids
;            TYPE: amino acid
;            STRANDEDNESS: single
;            TOPOLOGY: linear
;       MOLECULE TYPE: protein
;       SEQUENCE DESCRIPTION: SEQ ID NO: 3:
US-09-902-684-3

  Query Match             100.0%;  Score 2071;  DB 2;  Length 402;
  Best Local Similarity   100.0%;  Pred. No. 4.6e-204;
  Matches  402;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120

Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
              |||||||||||||||||||||||||||||||||||||||||||
Db        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402


RESULT 5
US-09-902-684-3
; Sequence 3, Application US/09902684
; Patent No. 6649738
;  GENERAL INFORMATION:
;       APPLICANT: Ni et al.
;       TITLE OF INVENTION: PANCREAS-DERIVED PLASMINOGEN ACTIVATOR
;                           INHIBITOR
;       NUMBER OF SEQUENCES: 15
;       CORRESPONDENCE ADDRESS:
;            ADDRESSEE: STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
;            STREET: 1100 NEW YORK AVENUE, SUITE 600
;            CITY: WASHINGTON
;            STATE: DC
;            COUNTRY: USA
;            ZIP: 20005-3934
;       COMPUTER READABLE FORM:
;            MEDIUM TYPE: Floppy disk
;            COMPUTER: IBM PC compatible
;            OPERATING SYSTEM: PC-DOS/MS-DOS
;            SOFTWARE: PatentIn Release #1.0, Version #1.30
;       CURRENT APPLICATION DATA:
;            APPLICATION NUMBER: US/09/902,684
;            FILING DATE: 12-Jul-2001
;            CLASSIFICATION: <Unknown>
;       PRIOR APPLICATION DATA:
;            APPLICATION NUMBER: 09/026,408
;            FILING DATE: <Unknown>
;            APPLICATION NUMBER: US 60/024,056
;            FILING DATE: 16-AUG-1996
;       ATTORNEY/AGENT INFORMATION:
;            NAME: STEFFE, ERIC K.
;            REGISTRATION NUMBER: 36,688
;            REFERENCE/DOCKET NUMBER: 1488.0300002
;       TELECOMMUNICATION INFORMATION:
;            TELEPHONE: 202-371-2600
;            TELEFAX: 202-371-2540
;   INFORMATION FOR SEQ ID NO: 3:
;       SEQUENCE CHARACTERISTICS:
;            LENGTH: 402 amino acids
;            TYPE: amino acid
;            STRANDEDNESS: single
;            TOPOLOGY: linear
;       MOLECULE TYPE: protein
;       SEQUENCE DESCRIPTION: SEQ ID NO: 3:
US-09-902-684-3

  Query Match             100.0%;  Score 2071;  DB 2;  Length 402;
  Best Local Similarity   100.0%;  Pred. No. 4.6e-204;
  Matches  402;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
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Qy          61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
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Db          61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120

Qy         121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180

Qy         181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240

Qy         241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300

Qy         301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360

Qy         361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
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Db         361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402


RESULT 6
US-10-628-395-3
; Sequence 3, Application US/10628395
; Patent No. 6893870
;   GENERAL INFORMATION:
;        APPLICANT: Ni et al.
;        TITLE OF INVENTION: PANCREAS-DERIVED PLASMINOGEN ACTIVATOR
;                            INHIBITOR
;        NUMBER OF SEQUENCES: 15
;        CORRESPONDENCE ADDRESS:
;             ADDRESSEE: STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
;             STREET: 1100 NEW YORK AVENUE, SUITE 600
;             CITY: WASHINGTON
;             STATE: DC
;             COUNTRY: USA
;             ZIP: 20005-3934
;        COMPUTER READABLE FORM:
;             MEDIUM TYPE: Floppy disk
;             COMPUTER: IBM PC compatible
;             OPERATING SYSTEM: PC-DOS/MS-DOS
;             SOFTWARE: PatentIn Release #1.0, Version #1.30
;        CURRENT APPLICATION DATA:
;             APPLICATION NUMBER: US/10/628,395
;             FILING DATE: 29-Jul-2003
;             CLASSIFICATION: <Unknown>
;        PRIOR APPLICATION DATA:
;             APPLICATION NUMBER: US/09/026,408
;             FILING DATE: 19-FEB-2001
;             APPLICATION NUMBER: US 08/934,011
;             FILING DATE: 15-AUG-1997
;             APPLICATION NUMBER: US 60/024,056
;             FILING DATE: 16-AUG-1996
;        ATTORNEY/AGENT INFORMATION:
;             NAME: STEFFE, ERIC K.
;             REGISTRATION NUMBER: 36,688
;             REFERENCE/DOCKET NUMBER: 1488.0300002
;        TELECOMMUNICATION INFORMATION:
;             TELEPHONE: 202-371-2600
;             TELEFAX: 202-371-2540
;   INFORMATION FOR SEQ ID NO: 3:
;        SEQUENCE CHARACTERISTICS:
;             LENGTH: 402 amino acids
;             TYPE: amino acid
;             STRANDEDNESS: single
;             TOPOLOGY: linear
;        MOLECULE TYPE: protein
;        SEQUENCE DESCRIPTION: SEQ ID NO: 3:
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US-10-628-395-3

  Query Match             100.0%;  Score 2071;  DB 2;  Length 402;
  Best Local Similarity   100.0%;  Pred. No. 4.6e-204;
  Matches  402;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy           1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
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Db           1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60

Qy          61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120

Qy         121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180

Qy         181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240

Qy         241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300

Qy         301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360

Qy         361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
               |||||||||||||||||||||||||||||||||||||||||
Db         361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402


RESULT 7
US-08-121-714-6
; Sequence 6, Application US/08121714
; Patent No. 5470970
;  GENERAL INFORMATION:
;    APPLICANT:  Sager, Ruth
;    TITLE OF INVENTION:  MASPIN, A NOVEL SERPIN WITH
;    TITLE OF INVENTION:  TUMOR SUPPRESSING ACTIVITY
;    NUMBER OF SEQUENCES:  8
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Fish & Richardson
;      STREET:  225 Franklin Street
;      CITY:  Boston
;      STATE:  Massachusetts
;      COUNTRY:  U.S.A.
;      ZIP:  02110-2804
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  3.5" Diskette, 1.44 Mb
;      COMPUTER:  IBM PS/2 Model 50Z or 55SX
;      OPERATING SYSTEM:  MS-DOS (Version 5.0)
;      SOFTWARE:  WordPerfect (Version 5.1)
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/121,714
;      FILING DATE:
;      CLASSIFICATION:  536
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  07/938,823
;      FILING DATE:  09/01/92
;      APPLICATION NUMBER:  07/844,296
;      FILING DATE:  02/28/92
;      APPLICATION NUMBER:  07/662,216
;      FILING DATE:  02/28/91
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Fraser, Janis K.
;      REGISTRATION NUMBER:  34,819
;      REFERENCE/DOCKET NUMBER:  00530/072001
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (617) 542-5070
```

```
;      TELEFAX:  (617) 542-8906
;      TELEX:  200154
;  INFORMATION FOR SEQ ID NO:  6:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  390
;      TYPE:  amino acid
;      STRANDEDNESS:
;      TOPOLOGY:  linear
US-08-121-714-6

  Query Match             96.9%;  Score 2007;  DB 1;  Length 390;
  Best Local Similarity   99.7%;  Pred. No. 1.6e-197;
  Matches  389;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
              ||||||||||||||:||||||||||||||||||||||||||||||||||||||||||||
Db          1 MQMSPALTCLVLGLAIVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120

Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPT 390
              |||||||||||||||||||||||||||||
Db        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPT 390


RESULT 8
US-08-477-108A-6
; Sequence 6, Application US/08477108A
; Patent No. 5801001
;  GENERAL INFORMATION:
;    APPLICANT:  Sager, Ruth
;    APPLICANT:  Zou, Zhiqiang
;    APPLICANT:  Anisowicz, Anthony
;    TITLE OF INVENTION:  MASPIN, A NOVEL SERPIN WITH
;    TITLE OF INVENTION:  TUMOR SUPPRESSING ACTIVITY
;    NUMBER OF SEQUENCES:  11
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Fish & Richardson P.C.
;      STREET:  225 Franklin Street
;      CITY:  Boston
;      STATE:  Massachusetts
;      COUNTRY:  U.S.A.
;      ZIP:  02110-2804
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  3.5" Diskette, 1.44 Mb
;      COMPUTER:  IBM PS/2 Model 50Z or 55SX
;      OPERATING SYSTEM:  MS-DOS (Version 5.0)
;      SOFTWARE:  WordPerfect (Version 5.1)
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/477,108A
;      FILING DATE:  June 7, 1995
;      CLASSIFICATION:  536
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  08/121,714
;      FILING DATE:  09/01/93
;      APPLICATION NUMBER:  07/938,823
;      FILING DATE:  09/01/92
;      APPLICATION NUMBER:  07/844,296
;      FILING DATE:  02/28/92
;      APPLICATION NUMBER:  07/662,216
;      FILING DATE:  02/28/91
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Fraser, Janis K.
;      REGISTRATION NUMBER:  34,819
;      REFERENCE/DOCKET NUMBER:  06570/002002
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (617) 542-5070
;      TELEFAX:  (617) 542-8906
;      TELEX:  200154
;  INFORMATION FOR SEQ ID NO:  6:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  390
;      TYPE:  amino acid
;      STRANDEDNESS:
;      TOPOLOGY:  linear
US-08-477-108A-6

  Query Match             96.9%;  Score 2007;  DB 1;  Length 390;
  Best Local Similarity   99.7%;  Pred. No. 1.6e-197;
  Matches  389;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
              ||||||||||||||:||||||||||||||||||||||||||||||||||||||||||||
Db          1 MQMSPALTCLVLGLAIVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120

Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPT 390
              |||||||||||||||||||||||||||||
Db        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPT 390


RESULT 9
US-08-477-112-6
; Sequence 6, Application US/08477112
; Patent No. 5905023
;  GENERAL INFORMATION:
;    APPLICANT:  Sager, Ruth
;    TITLE OF INVENTION:  MASPIN, A NOVEL SERPIN WITH
;    TITLE OF INVENTION:  TUMOR SUPPRESSING ACTIVITY
;    NUMBER OF SEQUENCES:  8
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Fish & Richardson P.C.
;      STREET:  225 Franklin Street
;      CITY:  Boston
;      STATE:  Massachusetts
;      COUNTRY:  U.S.A.
;      ZIP:  02110-2804
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  3.5" Diskette, 1.44 Mb
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;      COMPUTER:  IBM PS/2 Model 50Z or 55SX
;      OPERATING SYSTEM:  MS-DOS (Version 5.0)
;      SOFTWARE:  WordPerfect (Version 5.1)
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/477,112
;      FILING DATE:
;      CLASSIFICATION:  536
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  08/121,714
;      FILING DATE:  09/01/93
;      APPLICATION NUMBER:  07/938,823
;      FILING DATE:  09/01/92
;      APPLICATION NUMBER:  07/844,296
;      FILING DATE:  02/28/92
;      APPLICATION NUMBER:  07/662,216
;      FILING DATE:  02/28/91
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Fraser, Janis K.
;      REGISTRATION NUMBER:  34,819
;      REFERENCE/DOCKET NUMBER:  06570/002003
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (617) 542-5070
;      TELEFAX:  (617) 542-8906
;      TELEX:  200154
;  INFORMATION FOR SEQ ID NO:  6:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  390
;      TYPE:  amino acid
;      STRANDEDNESS:
;      TOPOLOGY:  linear
US-08-477-112-6

  Query Match             96.9%;  Score 2007;  DB 1;  Length 390;
  Best Local Similarity   99.7%;  Pred. No. 1.6e-197;
  Matches  389;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
              ||||||||||||||:||||||||||||||||||||||||||||||||||||||||||||
Db          1 MQMSPALTCLVLGLAIVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120

Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPT 390
              |||||||||||||||||||||||||||||
Db        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPT 390


RESULT 10
PCT-US93-08322-6
; Sequence 6, Application PC/TUS9308322
;  GENERAL INFORMATION:
;    APPLICANT:  Sager, Ruth
;    TITLE OF INVENTION:  MASPIN, A NOVEL SERPIN WITH TUMOR SUPPRESSING ACTIVITY
;    NUMBER OF SEQUENCES:  8
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Fish & Richardson
;      STREET:  225 Franklin Street
;      CITY:  Boston
;      STATE:  Massachusetts
;      COUNTRY:  U.S.A.
;      ZIP:  02110-2804
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  3.5" Diskette, 1.44 Mb
;      COMPUTER:  IBM PS/2 Model 50Z or 55SX
;      OPERATING SYSTEM:  MS-DOS (Version 5.0)
;      SOFTWARE:  WordPerfect (Version 5.1)
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  PCT/US93/08322
;      FILING DATE:
;      CLASSIFICATION:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  07/938,823
;      FILING DATE:  09/01/92
;      APPLICATION NUMBER:  07/844,296
;      FILING DATE:  02/28/92
;      APPLICATION NUMBER:  07/662,216
;      FILING DATE:  02/28/91
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Fraser, Janis K.
;      REGISTRATION NUMBER:  34,819
;      REFERENCE/DOCKET NUMBER:  00530/072001
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (617) 542-5070
;      TELEFAX:  (617) 542-8906
;      TELEX:  200154
;  INFORMATION FOR SEQ ID NO:  6:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  390
;      TYPE:  amino acid
;      STRANDEDNESS:
;      TOPOLOGY:  linear
PCT-US93-08322-6

  Query Match             96.9%;  Score 2007;  DB 4;  Length 390;
  Best Local Similarity   99.7%;  Pred. No. 1.6e-197;
  Matches  389;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
              ||||||||||||||:||||||||||||||||||||||||||||||||||||||||||||
Db          1 MQMSPALTCLVLGLAIVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120

Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPT 390
              |||||||||||||||||||||||||||||
Db        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPT 390


RESULT 11
US-08-840-204-3
```

```
; Sequence 3, Application US/08840204
; Patent No. 6103498
;  GENERAL INFORMATION:
;    APPLICANT:  LAWRENCE, DANIEL A.
;    APPLICANT:  STEFANSSON, STEINGRIMUR P.
;    TITLE OF INVENTION:  MUTANT PLASMINOGEN ACTIVATOR-INHIBITOR
;    TITLE OF INVENTION:  TYPE 1 (PAI-1) AND USES THEREOF
;    NUMBER OF SEQUENCES:  10
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  MORRISON & FOERSER
;      STREET:  2000 PENNSYLVANIA AVENUE, NW
;      CITY:  WASHINGTON
;      STATE:  DC
;      COUNTRY:  USA
;      ZIP:  20006-1812
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/840,204
;      FILING DATE:
;      CLASSIFICATION:  435
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  LIVNAT, SHMUEL
;      REGISTRATION NUMBER:  33,949
;      REFERENCE/DOCKET NUMBER:  30807-20004.00
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (202) 887-1500
;      TELEFAX:  (202) 822-0168
;      TELEX:  90-4030 MRSNFOERSWSH
;  INFORMATION FOR SEQ ID NO:  3:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  379 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
US-08-840-204-3

  Query Match             94.5%;  Score 1958;  DB 2;  Length 379;
  Best Local Similarity   100.0%;  Pred. No. 1.7e-192;
  Matches  379;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         24 VHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPYGVASVLAMLQLTTGGETQQQIQA 83
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 VHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPYGVASVLAMLQLTTGGETQQQIQA 60

Qy         84 AMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAIFVQRDLKLVQGFMPHFFRLFRST 143
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 AMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAIFVQRDLKLVQGFMPHFFRLFRST 120

Qy        144 VKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAVDQLTRLVLVNALYFNGQWKTPFP 203
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 VKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAVDQLTRLVLVNALYFNGQWKTPFP 180

Qy        204 DSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPDGHYYDILELPYHGDTLSMFIAAP 263
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 DSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPDGHYYDILELPYHGDTLSMFIAAP 240

Qy        264 YEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPKFSLETEVDLRKPLENLGMTDMFR 323
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 YEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPKFSLETEVDLRKPLENLGMTDMFR 300

Qy        324 QFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASSSTAVIVSARMAPEEIIMDRPFLF 383
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 QFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASSSTAVIVSARMAPEEIIMDRPFLF 360

Qy        384 VVRHNPTGTVLFMGQVMEP 402
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Db        361 VVRHNPTGTVLFMGQVMEP 379
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RESULT 12
US-09-324-494A-3
; Sequence 3, Application US/09324494A
; Patent No. 6489143
; GENERAL INFORMATION:
;  APPLICANT: LAWRENCE, Daniel A
;  APPLICANT:  STEFANSSON, Steingrimur P
;  TITLE OF INVENTION: MUTANT PLASMINOGEN ACTIVATOR-INHIBITOR TYPE 1 (PAI-1) AND USES TH
;  FILE REFERENCE: 30523/167
;  CURRENT APPLICATION NUMBER: US/09/324,494A
;  CURRENT FILING DATE:  1999-06-02
;  NUMBER OF SEQ ID NOS: 29
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 3
;   LENGTH: 379
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-324-494A-3

  Query Match             94.5%;  Score 1958;  DB 2;  Length 379;
  Best Local Similarity   100.0%;  Pred. No. 1.7e-192;
  Matches  379;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         24 VHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPYGVASVLAMLQLTTGGETQQQIQA 83
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 VHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPYGVASVLAMLQLTTGGETQQQIQA 60

Qy         84 AMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAIFVQRDLKLVQGFMPHFFRLFRST 143
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 AMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAIFVQRDLKLVQGFMPHFFRLFRST 120

Qy        144 VKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAVDQLTRLVLVNALYFNGQWKTPFP 203
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 VKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAVDQLTRLVLVNALYFNGQWKTPFP 180

Qy        204 DSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPDGHYYDILELPYHGDTLSMFIAAP 263
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 DSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPDGHYYDILELPYHGDTLSMFIAAP 240

Qy        264 YEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPKFSLETEVDLRKPLENLGMTDMFR 323
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 YEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPKFSLETEVDLRKPLENLGMTDMFR 300

Qy        324 QFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASSSTAVIVSARMAPEEIIMDRPFLF 383
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 QFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASSSTAVIVSARMAPEEIIMDRPFLF 360

Qy        384 VVRHNPTGTVLFMGQVMEP 402
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Db        361 VVRHNPTGTVLFMGQVMEP 379
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RESULT 13
US-08-948-997-4
; Sequence 4, Application US/08948997
; Patent No. 6008020
;  GENERAL INFORMATION:
;    APPLICANT:  HASTINGS, GREGG
;    APPLICANT:  COLEMAN, TIM
;    APPLICANT:  LAWRENCE, DANIEL
;    TITLE OF INVENTION:  BRAIN-ASSOCIATED INHIBITOR OF
;    TITLE OF INVENTION:  TISSUE-TYPE PLASMINOGEN ACTIVATOR
;    NUMBER OF SEQUENCES:  17
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  HUMAN GENOME SCIENCES, INC.
;      STREET:  9410 KEY WEST AVENUE
;      CITY:  ROCKVILLE
;      STATE:  MD
;      COUNTRY:  USA
;      ZIP:  20850
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
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;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/948,997
;      FILING DATE:  Oct-10-97
;      CLASSIFICATION:  435
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  A. ANDERS BROOKES
;      REGISTRATION NUMBER:  36,373
;      REFERENCE/DOCKET NUMBER:  PF336
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (301) 309-8504
;      TELEFAX:  (301) 309-8512
;  INFORMATION FOR SEQ ID NO:  4:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  402 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
US-08-948-997-4

  Query Match             86.1%;  Score 1784;  DB 2;  Length 402;
  Best Local Similarity   85.3%;  Pred. No. 1.4e-174;
  Matches  343;  Conservative   29;  Mismatches   30;  Indels    0;  Gaps    0;

Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
              |:|||   || |||||:|||||| : | |  | ||:||||:||||| :||||||||||||
Db          1 MRMSPVFACLALGLALIFGEGSASYQPQSAAASLATDFGVKVFQQVVRASKDRNVVFSPY 60

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
              ||||||||||||||||:|||| || |||::||||||   ||||||||||||||| |||
Db         61 GVASVLAMLQLTTGGETRQQIQEAMQFKIEEKGMAPAFHRLYKELMGPWNKDEISTADAI 120

Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
              ||||||:|| ||||:||||||:|||||||||||||||:||||| |||||||:|||:|||
Db        121 FVQRDLELVHGFMPNFFRLFRTTVKQVDFSEVERARFIVNDWVKRHTKGMISDLLGEGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
              |||||||||||||||||| |||:|:|| ||||||||||:|||||||||||||||||||||
Db        181 DQLTRLVLVNALYFNGQWKMPFPESNTHHRLFHKSDGSTISVPMMAQTNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
              | |||||||||:|||| |||||||||||||||:|| |:||| |||||||| |||||||
Db        241 GRYYDILELPYHGNTLSMLIAAPYEKEVPLSALTSILDAELISQWKGNMTRLTRLLVLPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
              ||||||:|||:|||||||||||  ||||:| |||| |:|:|||||||||||||:|||
Db        301 FSLETEIDLRRPLENLGMTDMFRPSQADFSSFSDQEFLYVSQALQKVKIEVNESGTLASS 360

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
              |||::|||||||||||||||||||||||||||||||||||||
Db        361 STALVVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402


RESULT 14
US-09-348-817A-4
; Sequence 4, Application US/09348817A
; Patent No. 6191260
; GENERAL INFORMATION:
;  APPLICANT:  Hastings et al.
;  TITLE OF INVENTION:  Brain-Associated Inhibitor of Tissue-Type Plasminogen
;  TITLE OF INVENTION:  Activator
;  FILE REFERENCE:  PF336D1
;  CURRENT APPLICATION NUMBER: US/09/348,817A
;  CURRENT FILING DATE:  1999-07-08
;  PRIOR APPLICATION NUMBER:  08/948,997
;  PRIOR FILING DATE:  1997-10-10
;  PRIOR APPLICATION NUMBER:  60/028,117
;  PRIOR FILING DATE:  1996-10-11
;  NUMBER OF SEQ ID NOS:  17
;  SOFTWARE:  PatentIn Ver. 2.1
; SEQ ID NO 4
;   LENGTH: 402
;   TYPE: PRT
;   ORGANISM: Bos taurus
US-09-348-817A-4

  Query Match             86.1%;  Score 1784;  DB 2;  Length 402;
  Best Local Similarity   85.3%;  Pred. No. 1.4e-174;
  Matches  343;  Conservative   29;  Mismatches   30;  Indels    0;  Gaps    0;

Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
              |:|||   || |||||:|||||| : | |  | ||:||||:||||| :||||||||||||
Db          1 MRMSPVFACLALGLALIFGEGSASYQPQSAAASLATDFGVKVFQQVVRASKDRNVVFSPY 60

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
              ||||||||||||||||:|||| || |||::||||||   ||||||||||||||| |||
Db         61 GVASVLAMLQLTTGGETRQQIQEAMQFKIEEKGMAPAFHRLYKELMGPWNKDEISTADAI 120

Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
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Db        121 FVQRDLELVHGFMPNFFRLFRTTVKQVDFSEVERARFIVNDWVKRHTKGMISDLLGEGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
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Db        181 DQLTRLVLVNALYFNGQWKMPFPESNTHHRLFHKSDGSTISVPMMAQTNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
              | |||||||||:|||| |||||||||||||||:|| |:||| |||||||| |||||||
Db        241 GRYYDILELPYHGNTLSMLIAAPYEKEVPLSALTSILDAELISQWKGNMTRLTRLLVLPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
              ||||||:|||:|||||||||||  ||||:| |||| |:|:|||||||||||||:|||
Db        301 FSLETEIDLRRPLENLGMTDMFRPSQADFSSFSDQEFLYVSQALQKVKIEVNESGTLASS 360

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
              |||::|||||||||||||||||||||||||||||||||||||
Db        361 STALVVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402


RESULT 15
US-09-722-292-4
; Sequence 4, Application US/09722292
; Patent No. 6541452
; GENERAL INFORMATION:
;  APPLICANT: Hastings et al.
;  TITLE OF INVENTION: Brain-Associated Inhibitor of Tissue-Type Plasminogen
;  TITLE OF INVENTION:  Activator
;  FILE REFERENCE: PF336D1
;  CURRENT APPLICATION NUMBER: US/09/722,292
;  CURRENT FILING DATE:  2000-11-28
;  PRIOR APPLICATION NUMBER: 09/348,817
;  PRIOR FILING DATE: 1999-07-08
;  PRIOR APPLICATION NUMBER: 60/028,117
;  PRIOR FILING DATE: 1996-10-11
;  NUMBER OF SEQ ID NOS: 17
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 4
;   LENGTH: 402
;   TYPE: PRT
;   ORGANISM: Bos taurus
US-09-722-292-4

  Query Match             86.1%;  Score 1784;  DB 2;  Length 402;
  Best Local Similarity   85.3%;  Pred. No. 1.4e-174;
  Matches  343;  Conservative   29;  Mismatches   30;  Indels    0;  Gaps    0;

Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
              |:|||   || |||||:|||||| : | |  | ||:||||:||||| :||||||||||||
Db          1 MRMSPVFACLALGLALIFGEGSASYQPQSAAASLATDFGVKVFQQVVRASKDRNVVFSPY 60

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
              ||||||||||||||||:|||| || |||::||||||   ||||||||||||||| |||
Db         61 GVASVLAMLQLTTGGETRQQIQEAMQFKIEEKGMAPAFHRLYKELMGPWNKDEISTADAI 120
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Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
              ||||||:|| ||||:||||||:||||||||||||||||:||||| |||||||:|||:|||
Db        121 FVQRDLELVHGFMPNFFRLFRTTVKQVDFSEVERARFIVNDWVKRHTKGMISDLLGEGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
              |||||||||||||||||| |||:|:|| ||||||||||:||||||||||||||||||||
Db        181 DQLTRLVLVNALYFNGQWKMPFPESNTHHRLFHKSDGSTISVPMMAQTNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
              | |||||||||||:|||| ||||||||||||||:|| |:||| |||||||| |||||||
Db        241 GRYYDILELPYHGNTLSMLIAAPYEKEVPLSALTSILDAELISQWKGNMTRLTRLLVLPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
              ||||||:|||:|||||||||||   ||||:| |||| |:|:|||||||||||||:|||
Db        301 FSLETEIDLRRPLENLGMTDMFRPSQADFSSFSDQEFLYVSQALQKVKIEVNESGTLASS 360

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
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Db        361 STALVVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
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Job time : 49 secs

GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: December 13, 2005, 15:46:54 ; Search time 164 Seconds
(without alignments)
1024.191 Million cell updates/sec

Title: US-10-506-406-2
Perfect score: 2071
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Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 1867569 seqs, 417829326 residues

Total number of hits satisfying chosen parameters: 1867569

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Published_Applications_AA_Main:*
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6: /cgn2_6/ptodata/1/pubpaa/US11_PUBCOMB.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	2071	100.0	402	3	US-09-902-684-3	Sequence 3, Appli
2	2071	100.0	402	4	US-10-060-036-154	Sequence 154, App
3	2071	100.0	402	4	US-10-193-656-10	Sequence 10, Appl
4	2071	100.0	402	4	US-10-128-706-6	Sequence 6, Appli
5	2071	100.0	402	4	US-10-170-385-235	Sequence 235, App
6	2071	100.0	402	4	US-10-259-609-2	Sequence 2, Appli
7	2071	100.0	402	4	US-10-368-995-4	Sequence 4, Appli
8	2071	100.0	402	4	US-10-197-258-2	Sequence 2, Appli
9	2071	100.0	402	4	US-10-231-956A-420	Sequence 420, App
10	2071	100.0	402	4	US-10-628-395-3	Sequence 3, Appli
11	2071	100.0	402	5	US-10-741-600-919	Sequence 919, App
12	2071	100.0	402	5	US-10-741-600-920	Sequence 920, App
13	2071	100.0	402	5	US-10-852-335A-140	Sequence 140, App
14	2071	100.0	402	5	US-10-512-496-6	Sequence 6, Appli
15	2071	100.0	402	5	US-10-506-406-2	Sequence 2, Appli
16	2071	100.0	402	5	US-10-631-467-857	Sequence 857, App
17	2071	100.0	402	6	US-11-060-291-8	Sequence 8, Appli
18	1993	96.2	386	4	US-10-368-995-6	Sequence 6, Appli
19	1958	94.5	379	4	US-10-259-609-3	Sequence 3, Appli
20	1958	94.5	379	5	US-10-506-406-3	Sequence 3, Appli
21	1784	86.1	402	3	US-09-957-485-4	Sequence 4, Appli
22	1784	86.1	402	3	US-09-987-021-4	Sequence 4, Appli
23	1784	86.1	402	4	US-10-368-995-2	Sequence 2, Appli
24	1784	86.1	402	4	US-10-355-208-4	Sequence 4, Appli
25	1784	86.1	402	4	US-10-752-041-4	Sequence 4, Appli
26	1746	84.3	400	4	US-10-368-995-8	Sequence 8, Appli
27	1680	81.1	402	4	US-10-128-706-16	Sequence 16, Appl
28	1680	81.1	402	4	US-10-368-995-14	Sequence 14, Appl
29	1680	81.1	402	5	US-10-512-496-16	Sequence 16, Appl
30	1626	78.5	402	4	US-10-368-995-10	Sequence 10, Appl
31	1626	78.5	402	4	US-10-368-995-12	Sequence 12, Appl
32	1626	78.5	402	5	US-10-631-467-1575	Sequence 1575, Ap
33	796.5	38.5	397	5	US-10-631-467-1595	Sequence 1595, Ap
34	791.5	38.2	397	3	US-09-957-485-5	Sequence 5, Appli
35	791.5	38.2	397	3	US-09-987-021-5	Sequence 5, Appli
36	791.5	38.2	397	4	US-10-355-208-5	Sequence 5, Appli
37	791.5	38.2	397	4	US-10-752-041-5	Sequence 5, Appli
38	771.5	37.3	397	4	US-10-428-487-5	Sequence 5, Appli
39	770.5	37.2	397	4	US-10-170-385-297	Sequence 297, App
40	761	36.7	398	4	US-10-301-822-185	Sequence 185, App
41	761	36.7	398	4	US-10-755-889-136	Sequence 136, App
42	761	36.7	398	5	US-10-287-436A-501	Sequence 501, App
43	761	36.7	398	5	US-10-287-436A-1264	Sequence 1264, Ap
44	656.5	31.7	360	4	US-10-023-634-88	Sequence 88, Appl
45	656.5	31.7	360	4	US-10-037-417-67	Sequence 67, Appl

ALIGNMENTS

RESULT 1
US-09-902-684-3
; Sequence 3, Application US/09902684
; Patent No. US20020127640A1
; GENERAL INFORMATION:
; APPLICANT: Ni et al.
; TITLE OF INVENTION: PANCREAS-DERIVED PLASMINOGEN ACTIVATOR INHIBITOR
; NUMBER OF SEQUENCES: 15
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
; STREET: 1100 NEW YORK AVENUE, SUITE 600
; CITY: WASHINGTON
; STATE: DC
; COUNTRY: USA
; ZIP: 20005-3934
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/902,684
; FILING DATE: 12-Jul-2001
; CLASSIFICATION: <Unknown>
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 09/026,408
; FILING DATE: <Unknown>
; APPLICATION NUMBER: US 60/024,056
; FILING DATE: 16-AUG-1996
; ATTORNEY/AGENT INFORMATION:
; NAME: STEFFE, ERIC K.
; REGISTRATION NUMBER: 36,688
; REFERENCE/DOCKET NUMBER: 1488.0300002
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 202-371-2600
; TELEFAX: 202-371-2540
; INFORMATION FOR SEQ ID NO: 3:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 402 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; SEQUENCE DESCRIPTION: SEQ ID NO: 3:
US-09-902-684-3

Query Match 100.0%; Score 2071; DB 3; Length 402;
Best Local Similarity 100.0%; Pred. No. 3e-190;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120

Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
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Db        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
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Db        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
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Db        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
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Db        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
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RESULT 2
US-10-060-036-154
; Sequence 154, Application US/10060036
; Publication No. US20030073144A1
; GENERAL INFORMATION:
; APPLICANT: Benson, Darin R.
; APPLICANT: Kalos, Michael D.
; APPLICANT: Lodes, Michael J.
; APPLICANT: Persing, David H.
; APPLICANT: Hepler, William T.
; APPLICANT: Jiang, Yuqiu
; TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
; TITLE OF INVENTION: AND DIAGNOSIS OF PANCREATIC CANCER
; FILE REFERENCE: 210121.566
; CURRENT APPLICATION NUMBER: US/10/060,036
; CURRENT FILING DATE: 2002-01-30
; NUMBER OF SEQ ID NOS: 4560
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 154
; LENGTH: 402
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-060-036-154

Query Match 100.0%; Score 2071; DB 4; Length 402;
Best Local Similarity 100.0%; Pred. No. 3e-190;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120

Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
              ||||||||||||||||||||||||||||||||||||||||||
Db        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
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RESULT 3
US-10-193-656-10
; Sequence 10, Application US/10193656
; Publication No. US20030096733A1
; GENERAL INFORMATION:
; APPLICANT: NY, Tor
; APPLICANT: HOLMDAHL, Rikard
; APPLICANT: LI, Jinan
; TITLE OF INVENTION: NOVEL DRUG TARGETS FOR ARTHRITIS
; FILE REFERENCE: 3810/1J577-US3
; CURRENT APPLICATION NUMBER: US/10/193,656
; CURRENT FILING DATE: 2002-07-10
; PRIOR APPLICATION NUMBER: US 60/304,461
; PRIOR FILING DATE: 2001-07-10
; PRIOR APPLICATION NUMBER: US 60/304,490
; PRIOR FILING DATE: 2001-07-10
; PRIOR APPLICATION NUMBER: US 60/305,182
; PRIOR FILING DATE: 2001-07-13
; NUMBER OF SEQ ID NOS: 18
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 10
; LENGTH: 402
; TYPE: PRT
; ORGANISM: Homo sapiens
; PUBLICATION INFORMATION:
; DATABASE ACCESSION NUMBER: GenBank / P05121
; DATABASE ENTRY DATE: 1987-08-13
; RELEVANT RESIDUES: (1)..(402)
US-10-193-656-10

Query Match 100.0%; Score 2071; DB 4; Length 402;
Best Local Similarity 100.0%; Pred. No. 3e-190;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120

Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
              ||||||||||||||||||||||||||||||||||||||||||
Db        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
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Db        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402


RESULT 4
US-10-128-706-6
; Sequence 6, Application US/10128706
; Publication No. US20030199463A1
; GENERAL INFORMATION:
;  APPLICANT: ITESCU, SILVIU
;  TITLE OF INVENTION: A DNA ENZYME TO INHIBIT PLASMINOGEN ACTIVATOR INHIBITOR-1
;  FILE REFERENCE: 0575/66601
;  CURRENT APPLICATION NUMBER: US/10/128,706
;  CURRENT FILING DATE:  2002-04-23
;  NUMBER OF SEQ ID NOS: 17
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 6
;   LENGTH: 402
;   TYPE: PRT
;   ORGANISM: HOMO SAPIENS
US-10-128-706-6

  Query Match             100.0%;  Score 2071;  DB 4;  Length 402;
  Best Local Similarity   100.0%;  Pred. No. 3e-190;
  Matches  402;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120

Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
              ||||||||||||||||||||||||||||||||||||||||||
Db        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402


RESULT 5
US-10-170-385-235
; Sequence 235, Application US/10170385
; Publication No. US20030203372A1
; GENERAL INFORMATION:
;  APPLICANT: Ward, Neil Raymond
;  APPLICANT:  Mundy, Christopher Robert
;  APPLICANT:  Kan, On
;  APPLICANT:  Harris, Robert Alan
;  APPLICANT:  White, Jonathan
;  APPLICANT:  Binley, Katie Mary
;  APPLICANT:  Rayner, William Nigel
;  APPLICANT:  Naylor, Stuart
;  APPLICANT:  Kingsman, Susan Mary
;  APPLICANT:  Krige, David
;  TITLE OF INVENTION: ANALYSIS METHOD
;  FILE REFERENCE: 532682000100
;  CURRENT APPLICATION NUMBER: US/10/170,385
;  CURRENT FILING DATE:  2002-06-12
;  PRIOR APPLICATION NUMBER: PCT/GB02/01662
;  PRIOR FILING DATE: 2002-04-08
;  PRIOR APPLICATION NUMBER: PCT/GB01/05458
;  PRIOR FILING DATE: 2001-12-10
;  NUMBER OF SEQ ID NOS: 549
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 235
;   LENGTH: 402
;   TYPE: PRT
;   ORGANISM: Homo Sapiens
US-10-170-385-235

  Query Match             100.0%;  Score 2071;  DB 4;  Length 402;
  Best Local Similarity   100.0%;  Pred. No. 3e-190;
  Matches  402;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120

Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
              ||||||||||||||||||||||||||||||||||||||||||
Db        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402


RESULT 6
US-10-259-609-2
; Sequence 2, Application US/10259609
; Publication No. US20030216321A1
; GENERAL INFORMATION:
;  APPLICANT: LAWRENCE, Daniel A
;  APPLICANT:  STEFANSSON, Steingrimur P
;  TITLE OF INVENTION: MUTANT PLASMINOGEN ACTIVATOR-INHIBITOR TYPE 1 (PAI-1) AND USES TH
;  FILE REFERENCE: 30523/167
;  CURRENT APPLICATION NUMBER: US/10/259,609
;  CURRENT FILING DATE:  2002-09-30
;  PRIOR APPLICATION NUMBER: US/09/324,494A
;  PRIOR FILING DATE: 1999-06-02
;  NUMBER OF SEQ ID NOS: 29
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 2
;   LENGTH: 402
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-259-609-2

  Query Match             100.0%;  Score 2071;  DB 4;  Length 402;
  Best Local Similarity   100.0%;  Pred. No. 3e-190;
  Matches  402;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
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Db          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120

Db         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120

Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180

Db        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240

Db        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300

Db        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360

Db        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402

Db        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402


RESULT 7
US-10-368-995-4
; Sequence 4, Application US/10368995
; Publication No. US20030217371A1
; GENERAL INFORMATION:
;  APPLICANT: Vaughan, Douglas E.
;  APPLICANT:  Eren, Mesut
;  APPLICANT:  Declerk, Paul J.
;  TITLE OF INVENTION: THERAPEUTIC METHODS EMPLOYING PAI-1 INHIBITORS AND TRANSGENIC NON
;  TITLE OF INVENTION:  ANIMAL
;  FILE REFERENCE: 1242/43
;  CURRENT APPLICATION NUMBER: US/10/368,995
;  CURRENT FILING DATE:  2003-02-19
;  NUMBER OF SEQ ID NOS: 16
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 4
;   LENGTH: 402
;   TYPE: PRT
;   ORGANISM: Human
US-10-368-995-4

  Query Match           100.0%;  Score 2071;  DB 4;  Length 402;
  Best Local Similarity  100.0%;  Pred. No. 3e-190;
  Matches  402;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60

Db          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120

Db         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120

Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180

Db        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240

Db        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300

Db        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360

Db        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402

Db        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402


RESULT 8
US-10-197-258-2
; Sequence 2, Application US/10197258
; Publication No. US20040014190A1
; GENERAL INFORMATION:
;  APPLICANT: LAWRENCE, DANIEL A.
;  APPLICANT:  GORLATOVA, NATALIA
;  APPLICANT:  CRANDALL, DAVID L.
;  TITLE OF INVENTION: MUTANT PROTEINASE-INHIBITORS AND USES THEREOF
;  FILE REFERENCE: 030523-0187
;  CURRENT APPLICATION NUMBER: US/10/197,258
;  CURRENT FILING DATE:  2002-07-18
;  NUMBER OF SEQ ID NOS: 12
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 2
;   LENGTH: 402
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-197-258-2

  Query Match           100.0%;  Score 2071;  DB 4;  Length 402;
  Best Local Similarity  100.0%;  Pred. No. 3e-190;
  Matches  402;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60

Db          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120

Db         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120

Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180

Db        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240

Db        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300

Db        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360

Db        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402

Db        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402


RESULT 9
US-10-231-956A-420
; Sequence 420, Application US/10231956A
; Publication No. US20040053233A1
; GENERAL INFORMATION:
;  APPLICANT: Lorens, James B.
;  APPLICANT:  Xu, Weiduan
;  APPLICANT:  Bogenberger, Jakob
;  APPLICANT:  Holland, Sacha
;  APPLICANT:  Rigel Pharmaceuticals, Incorporated
;  TITLE OF INVENTION: Modulators of Angiogenesis
;  FILE REFERENCE: 021044-004100US
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;  CURRENT APPLICATION NUMBER: US/10/231,956A
;  CURRENT FILING DATE:  2001-08-30
;  NUMBER OF SEQ ID NOS: 522
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 420
;   LENGTH: 402
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-231-956A-420

  Query Match           100.0%;  Score 2071;  DB 4;  Length 402;
  Best Local Similarity   100.0%;  Pred. No. 3e-190;
  Matches  402;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120

Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
              |||||||||||||||||||||||||||||||||||||||||
Db        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402


RESULT 10
US-10-628-395-3
; Sequence 3, Application US/10628395
; Publication No. US20040086978A1
;   GENERAL INFORMATION:
;        APPLICANT: Ni et al.
;        TITLE OF INVENTION: PANCREAS-DERIVED PLASMINOGEN ACTIVATOR
;                            INHIBITOR
;        NUMBER OF SEQUENCES: 15
;        CORRESPONDENCE ADDRESS:
;             ADDRESSEE: STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
;             STREET: 1100 NEW YORK AVENUE, SUITE 600
;             CITY: WASHINGTON
;             STATE: DC
;             COUNTRY: USA
;             ZIP: 20005-3934
;        COMPUTER READABLE FORM:
;             MEDIUM TYPE: Floppy disk
;             COMPUTER: IBM PC compatible
;             OPERATING SYSTEM: PC-DOS/MS-DOS
;             SOFTWARE: PatentIn Release #1.0, Version #1.30
;        CURRENT APPLICATION DATA:
;             APPLICATION NUMBER: US/10/628,395
;             FILING DATE: 29-Jul-2003
;             CLASSIFICATION: <Unknown>
;        PRIOR APPLICATION DATA:
;             APPLICATION NUMBER: US/09/026,408
;             FILING DATE: 19-FEB-2001
;             APPLICATION NUMBER: US 08/934,011
;             FILING DATE: 15-AUG-1997
;             APPLICATION NUMBER: US 60/024,056
;             FILING DATE: 16-AUG-1996
;        ATTORNEY/AGENT INFORMATION:
;             NAME: STEFFE, ERIC K.
;             REGISTRATION NUMBER: 36,688
;             REFERENCE/DOCKET NUMBER: 1488.0300002
;        TELECOMMUNICATION INFORMATION:
;             TELEPHONE: 202-371-2600
;             TELEFAX: 202-371-2540
;   INFORMATION FOR SEQ ID NO: 3:
;        SEQUENCE CHARACTERISTICS:
;             LENGTH: 402 amino acids
;             TYPE: amino acid
;             STRANDEDNESS: single
;             TOPOLOGY: linear
;        MOLECULE TYPE: protein
;        SEQUENCE DESCRIPTION: SEQ ID NO: 3:
US-10-628-395-3

  Query Match           100.0%;  Score 2071;  DB 4;  Length 402;
  Best Local Similarity   100.0%;  Pred. No. 3e-190;
  Matches  402;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120

Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
              |||||||||||||||||||||||||||||||||||||||||
Db        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402


RESULT 11
US-10-741-600-919
; Sequence 919, Application US/10741600
; Publication No. US20050026169A1
; GENERAL INFORMATION:
;  APPLICANT: CARGILL, Michele et al.
;  TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH
;  TITLE OF INVENTION:  MYOCARDIAL INFARCTION, METHODS OF DETECTION AND USES THEREOF
;  FILE REFERENCE: CL001499
;  CURRENT APPLICATION NUMBER: US/10/741,600
;  CURRENT FILING DATE:  2003-12-22
;  NUMBER OF SEQ ID NOS: 73997
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 919
;   LENGTH: 402
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-741-600-919

  Query Match           100.0%;  Score 2071;  DB 5;  Length 402;
  Best Local Similarity   100.0%;  Pred. No. 3e-190;
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  Matches  402;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120

Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
              |||||||||||||||||||||||||||||||||||||||||
Db        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402


RESULT 12
US-10-741-600-920
; Sequence 920, Application US/10741600
; Publication No. US20050026169A1
; GENERAL INFORMATION:
;  APPLICANT: CARGILL, Michele et al.
;  TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH
;  TITLE OF INVENTION:  MYOCARDIAL INFARCTION, METHODS OF DETECTION AND USES THEREOF
;  FILE REFERENCE: CL001499
;  CURRENT APPLICATION NUMBER: US/10/741,600
;  CURRENT FILING DATE:  2003-12-22
;  NUMBER OF SEQ ID NOS: 73997
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 920
;   LENGTH: 402
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-741-600-920

  Query Match             100.0%;  Score 2071;  DB 5;  Length 402;
  Best Local Similarity   100.0%;  Pred. No. 3e-190;
  Matches  402;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120

Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
              |||||||||||||||||||||||||||||||||||||||||
Db        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402


RESULT 13
US-10-852-335A-140
; Sequence 140, Application US/10852335A
; Publication No. US20050112129A1
; GENERAL INFORMATION:
;  APPLICANT: HEIDI S. PHILLIPS
;  TITLE OF INVENTION: Compositions and Methods for the Diagnosis and
;  TITLE OF INVENTION:  Treatment of Tumors of Glial Origin
;  FILE REFERENCE: P5103R1-US
;  CURRENT APPLICATION NUMBER: US/10/852,335A
;  CURRENT FILING DATE:  2004-05-24
;  PRIOR APPLICATION NUMBER: US 60/548,299
;  PRIOR FILING DATE: 2004-02-27
;  PRIOR APPLICATION NUMBER: US 60/473,238
;  PRIOR FILING DATE: 2003-05-23
;  NUMBER OF SEQ ID NOS: 190
; SEQ ID NO 140
;   LENGTH: 402
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-852-335A-140

  Query Match             100.0%;  Score 2071;  DB 5;  Length 402;
  Best Local Similarity   100.0%;  Pred. No. 3e-190;
  Matches  402;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120

Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
              |||||||||||||||||||||||||||||||||||||||||
Db        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402


RESULT 14
US-10-512-496-6
; Sequence 6, Application US/10512496
; Publication No. US20050148527A1
; GENERAL INFORMATION:
;  APPLICANT: ITESCU, SILVIU
;  TITLE OF INVENTION: A DNA ENZYME TO INHIBIT PLASMINOGEN ACTIVATOR INHIBITOR-1
;  FILE REFERENCE: 0575/66601-A-PCT-US
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;  CURRENT APPLICATION NUMBER: US/10/512,496
;  CURRENT FILING DATE:  2004-10-25
;  NUMBER OF SEQ ID NOS: 17
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 6
;   LENGTH: 402
;   TYPE: PRT
;   ORGANISM: HOMO SAPIENS
US-10-512-496-6

  Query Match           100.0%;  Score 2071;  DB 5;  Length 402;
  Best Local Similarity  100.0%;  Pred. No. 3e-190;
  Matches  402;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120

Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
              |||||||||||||||||||||||||||||||||||||||||
Db        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402


RESULT 15
US-10-506-406-2
; Sequence 2, Application US/10506406
; Publication No. US20050158295A1
; GENERAL INFORMATION:
;  APPLICANT: Swiercz, Rafal
;  APPLICANT:  Selman, Steven
;  APPLICANT:  Jankun, Jerzy
;  APPLICANT:  Chorostowska-Wynimko, Joanna
;  APPLICANT:  Skrzypczak-Jankun, Ewa
;  TITLE OF INVENTION: MODIFIED PLASMINOGEN ACTIVATOR INHIBITOR
;  TITLE OF INVENTION:  TYPE-1 AND METHODS BASED THEREON
;  FILE REFERENCE: 9471-011-999
;  CURRENT APPLICATION NUMBER: US/10/506,406
;  CURRENT FILING DATE:  2004-09-01
;  PRIOR APPLICATION NUMBER: PCT/US03/06679
;  PRIOR FILING DATE: 2003-03-04
;  PRIOR APPLICATION NUMBER: 60/361,670
;  PRIOR FILING DATE: 2002-03-04
;  NUMBER OF SEQ ID NOS: 3
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 2
;   LENGTH: 402
;   TYPE: PRT
;   ORGANISM: Homo sapiens
;   FEATURE:
;   OTHER INFORMATION: human PAI-1 amino acid sequence, including signal peptide
US-10-506-406-2

  Query Match           100.0%;  Score 2071;  DB 5;  Length 402;
  Best Local Similarity  100.0%;  Pred. No. 3e-190;
  Matches  402;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120

Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
              |||||||||||||||||||||||||||||||||||||||||
Db        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402


RESULT 16
US-10-631-467-857
; Sequence 857, Application US/10631467
; Publication No. US20050208496A1
; GENERAL INFORMATION:
;  APPLICANT: Genox Research Inc.
;  TITLE OF INVENTION: Method for testing for broncheal asthma, or chronic obstructive p
;  TITLE OF INVENTION:  disease
;  FILE REFERENCE: 3462.1005-000
;  CURRENT APPLICATION NUMBER: US/10/631,467
;  CURRENT FILING DATE:  2003-07-31
;  PRIOR APPLICATION NUMBER: JP 2003-077212
;  PRIOR FILING DATE: 2003-03-20
;  PRIOR APPLICATION NUMBER: JP 2002-229312
;  PRIOR FILING DATE: 2002-08-06
;  NUMBER OF SEQ ID NOS: 2086
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 857
;   LENGTH: 402
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-631-467-857

  Query Match           100.0%;  Score 2071;  DB 5;  Length 402;
  Best Local Similarity  100.0%;  Pred. No. 3e-190;
  Matches  402;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120

Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
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Db        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
              |||||||||||||||||||||||||||||||||||||||||
Db        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402


RESULT 17
US-11-060-291-8
; Sequence 8, Application US/11060291
; Publication No. US20050186608A1
; GENERAL INFORMATION:
;  APPLICANT: Olsen, Byron
;  TITLE OF INVENTION: A Method for the Production of Transgenic Proteins Usseful in the
;  TITLE OF INVENTION:  Treatment of Obesity and Diabetes
;  FILE REFERENCE: GTC-223
;  CURRENT APPLICATION NUMBER: US/11/060,291
;  CURRENT FILING DATE:  2005-02-17
;  PRIOR APPLICATION NUMBER: 60/545,790
;  PRIOR FILING DATE: 2004-02-19
;  NUMBER OF SEQ ID NOS: 23
;  SOFTWARE: PatentIn version 3.3
; SEQ ID NO 8
;   LENGTH: 402
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-11-060-291-8

  Query Match            100.0%;  Score 2071;  DB 6;  Length 402;
  Best Local Similarity  100.0%;  Pred. No. 3e-190;
  Matches  402;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120

Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
              |||||||||||||||||||||||||||||||||||||||||
Db        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402


RESULT 18
US-10-368-995-6
; Sequence 6, Application US/10368995
; Publication No. US20030217371A1
; GENERAL INFORMATION:
;  APPLICANT: Vaughan, Douglas E.
;  APPLICANT:  Eren, Mesut
;  APPLICANT:  Declerk, Paul J.
;  TITLE OF INVENTION: THERAPEUTIC METHODS EMPLOYING PAI-1 INHIBITORS AND TRANSGENIC NON
;  TITLE OF INVENTION:  ANIMAL
;  FILE REFERENCE: 1242/43
;  CURRENT APPLICATION NUMBER: US/10/368,995
;  CURRENT FILING DATE:  2003-02-19
;  NUMBER OF SEQ ID NOS: 16
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 6
;   LENGTH: 386
;   TYPE: PRT
;   ORGANISM: Human
US-10-368-995-6

  Query Match            96.2%;  Score 1993;  DB 4;  Length 386;
  Best Local Similarity  100.0%;  Pred. No. 9e-183;
  Matches  386;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         17 VFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPYGVASVLAMLQLTTGGE 76
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 VFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPYGVASVLAMLQLTTGGE 60

Qy         77 TQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAIFVQRDLKLVQGFMPHF 136
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 TQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAIFVQRDLKLVQGFMPHF 120

Qy        137 FRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAVDQLTRLVLVNALYFNG 196
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 FRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAVDQLTRLVLVNALYFNG 180

Qy        197 QWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPDGHYYDILELPYHGDTL 256
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 QWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPDGHYYDILELPYHGDTL 240

Qy        257 SMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPKFSLETEVDLRKPLENL 316
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 SMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPKFSLETEVDLRKPLENL 300

Qy        317 GMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASSSTAVIVSARMAPEEII 376
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 GMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASSSTAVIVSARMAPEEII 360

Qy        377 MDRPFLFVVRHNPTGTVLFMGQVMEP 402
              ||||||||||||||||||||||||||
Db        361 MDRPFLFVVRHNPTGTVLFMGQVMEP 386


RESULT 19
US-10-259-609-3
; Sequence 3, Application US/10259609
; Publication No. US20030216321A1
; GENERAL INFORMATION:
;  APPLICANT: LAWRENCE, Daniel A
;  APPLICANT:  STEFANSSON, Steingrimur P
;  TITLE OF INVENTION: MUTANT PLASMINOGEN ACTIVATOR-INHIBITOR TYPE 1 (PAI-1) AND USES THI
;  FILE REFERENCE: 30523/167
;  CURRENT APPLICATION NUMBER: US/10/259,609
;  CURRENT FILING DATE:  2002-09-30
;  PRIOR APPLICATION NUMBER: US/09/324,494A
;  PRIOR FILING DATE: 1999-06-02
;  NUMBER OF SEQ ID NOS: 29
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 3
;   LENGTH: 379
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-259-609-3

  Query Match            94.5%;  Score 1958;  DB 4;  Length 379;
  Best Local Similarity  100.0%;  Pred. No. 2e-179;
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  Matches  379;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         24 VHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPYGVASVLAMLQLTTGGETQQQIQA 83
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 VHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPYGVASVLAMLQLTTGGETQQQIQA 60

Qy         84 AMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAIFVQRDLKLVQGFMPHFFRLFRST 143
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 AMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAIFVQRDLKLVQGFMPHFFRLFRST 120

Qy        144 VKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAVDQLTRLVLVNALYFNGQWKTPFP 203
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 VKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAVDQLTRLVLVNALYFNGQWKTPFP 180

Qy        204 DSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPDGHYYDILELPYHGDTLSMFIAAP 263
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 DSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPDGHYYDILELPYHGDTLSMFIAAP 240

Qy        264 YEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPKFSLETEVDLRKPLENLGMTDMFR 323
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 YEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPKFSLETEVDLRKPLENLGMTDMFR 300

Qy        324 QFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASSSTAVIVSARMAPEEIIMDRPFLF 383
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 QFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASSSTAVIVSARMAPEEIIMDRPFLF 360

Qy        384 VVRHNPTGTVLFMGQVMEP 402
              ||||||||||||||||||||
Db        361 VVRHNPTGTVLFMGQVMEP 379


RESULT 20
US-10-506-406-3
; Sequence 3, Application US/10506406
; Publication No. US20050158295A1
; GENERAL INFORMATION:
;  APPLICANT: Swiercz, Rafal
;  APPLICANT:  Selman, Steven
;  APPLICANT:  Jankun, Jerzy
;  APPLICANT:  Chorostowska-Wynimko, Joanna
;  APPLICANT:  Skrzypczak-Jankun, Ewa
;  TITLE OF INVENTION: MODIFIED PLASMINOGEN ACTIVATOR INHIBITOR
;  TITLE OF INVENTION:  TYPE-1 AND METHODS BASED THEREON
;  FILE REFERENCE: 9471-011-999
;  CURRENT APPLICATION NUMBER: US/10/506,406
;  CURRENT FILING DATE:  2004-09-01
;  PRIOR APPLICATION NUMBER: PCT/US03/06679
;  PRIOR FILING DATE: 2003-03-04
;  PRIOR APPLICATION NUMBER: 60/361,670
;  PRIOR FILING DATE: 2002-03-04
;  NUMBER OF SEQ ID NOS: 3
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 3
;   LENGTH: 379
;   TYPE: PRT
;   ORGANISM: Homo sapiens
;   FEATURE:
;   OTHER INFORMATION: human PAI-1 mature amino acid sequence
US-10-506-406-3

  Query Match             94.5%;  Score 1958;  DB 5;  Length 379;
  Best Local Similarity   100.0%;  Pred. No. 2e-179;
  Matches  379;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         24 VHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPYGVASVLAMLQLTTGGETQQQIQA 83
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 VHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPYGVASVLAMLQLTTGGETQQQIQA 60

Qy         84 AMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAIFVQRDLKLVQGFMPHFFRLFRST 143
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 AMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAIFVQRDLKLVQGFMPHFFRLFRST 120

Qy        144 VKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAVDQLTRLVLVNALYFNGQWKTPFP 203
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 VKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAVDQLTRLVLVNALYFNGQWKTPFP 180

Qy        204 DSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPDGHYYDILELPYHGDTLSMFIAAP 263
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 DSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPDGHYYDILELPYHGDTLSMFIAAP 240

Qy        264 YEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPKFSLETEVDLRKPLENLGMTDMFR 323
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 YEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPKFSLETEVDLRKPLENLGMTDMFR 300

Qy        324 QFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASSSTAVIVSARMAPEEIIMDRPFLF 383
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 QFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASSSTAVIVSARMAPEEIIMDRPFLF 360

Qy        384 VVRHNPTGTVLFMGQVMEP 402
              ||||||||||||||||||||
Db        361 VVRHNPTGTVLFMGQVMEP 379


RESULT 21
US-09-957-485-4
; Sequence 4, Application US/09957485
; Patent No. US20020143165A1
; GENERAL INFORMATION:
;  APPLICANT: Human Genome Sciences, Inc. et al.
;  TITLE OF INVENTION: Brain-Associated Inhibitor of Tissue-Type Plasminogen
;  TITLE OF INVENTION:  Activator
;  FILE REFERENCE: PF336P1
;  CURRENT APPLICATION NUMBER: US/09/957,485
;  CURRENT FILING DATE:  2001-09-21
;  PRIOR APPLICATION NUMBER: US 09/521,664
;  PRIOR FILING DATE: 2000-03-08
;  PRIOR APPLICATION NUMBER: US 60/123,704
;  PRIOR FILING DATE: 1999-03-10
;  NUMBER OF SEQ ID NOS: 21
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 4
;   LENGTH: 402
;   TYPE: PRT
;   ORGANISM: Bos taurus
US-09-957-485-4

  Query Match             86.1%;  Score 1784;  DB 3;  Length 402;
  Best Local Similarity   85.3%;  Pred. No. 1.2e-162;
  Matches  343;  Conservative   29;  Mismatches   30;  Indels    0;  Gaps    0;

Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
              |:|||   || |||||:|||||| : | |  | ||:||||:||||| :|||||||||||
Db          1 MRMSPVFACLALGLALIFGEGSASYQPQSAAASLATDFGVKVFQQVVRASKDRNVVFSPY 60

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
              ||||||||||||||||:|||| || |||::||||||   ||||||||||||||| |||
Db         61 GVASVLAMLQLTTGGETRQQIQEAMQFKIEEKGMAPAFHRLYKELMGPWNKDEISTADAI 120

Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
              ||||||:|| ||||:||||||:||||||||||||||:|||| |||||||:|||:|||
Db        121 FVQRDLELVHGFMPNFFRLFRTTVKQVDFSEVERARFIVNDWVKRHTKGMISDLLGEGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
              |||||||||||||||||| |||:|:|| ||||||||||:|||||||||||||||||||||
Db        181 DQLTRLVLVNALYFNGQWKMPFPESNTHHRLFHKSDGSTISVPMMAQTNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
              | |||||||||:|||| |||||||||||||:|| |:||| |||||||| |||||||
Db        241 GRYYDILELPYHGNTLSMLIAAPYEKEVPLSALTSILDAELISQWKGNMTRLTRLLVLPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
              ||||||:|||:||||||||||||  ||||:| |||| |:|:|||||||||||||||:|||
Db        301 FSLETEIDLRRPLENLGMTDMFRPSQADFSSFSDQEFLYVSQALQKVKIEVNESGTLASS 360

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
              |||::|||||||||||||||||||||||||||||||||||||
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Db        361 STALVVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402


RESULT 22
US-09-987-021-4
; Sequence 4, Application US/09987021
; Patent No. US20020165147A1
; GENERAL INFORMATION:
;  APPLICANT: Yepes, et al.
;  TITLE OF INVENTION: Brain-Associated Inhibitor of Tissue-Type Plasminogen Activator
;  FILE REFERENCE: PF336P2
;  CURRENT APPLICATION NUMBER: US/09/987,021
;  CURRENT FILING DATE:  2001-11-13
;  PRIOR APPLICATION NUMBER: 09/957,485
;  PRIOR FILING DATE: 2001-09-21
;  PRIOR APPLICATION NUMBER: 09/722,292
;  PRIOR FILING DATE: 2000-11-28
;  PRIOR APPLICATION NUMBER: 60/247,971
;  PRIOR FILING DATE: 2000-11-14
;  PRIOR APPLICATION NUMBER: 09/521,664
;  PRIOR FILING DATE: 2000-03-08
;  PRIOR APPLICATION NUMBER: 09/348,817
;  PRIOR FILING DATE: 1999-07-08
;  PRIOR APPLICATION NUMBER: 60/123,704
;  PRIOR FILING DATE: 1999-03-10
;  PRIOR APPLICATION NUMBER: 08/948,997
;  PRIOR FILING DATE: 1997-10-10
;  PRIOR APPLICATION NUMBER: 60/028,117
;  PRIOR FILING DATE: 1996-10-11
;  NUMBER OF SEQ ID NOS: 18
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 4
;   LENGTH: 402
;   TYPE: PRT
;   ORGANISM: Bos taurus
US-09-987-021-4

  Query Match             86.1%;  Score 1784;  DB 3;  Length 402;
  Best Local Similarity   85.3%;  Pred. No. 1.2e-162;
  Matches  343;  Conservative   29;  Mismatches   30;  Indels    0;  Gaps    0;

Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
              |:|||   || |||||:|||||| : | |  | ||:||||:||||| :||||||||||||
Db          1 MRMSPVFACLALGLALIFGEGSASYQPQSAAASLATDFGVKVFQQVVRASKDRNVVFSPY 60

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
              ||||||||||||||||:|||| || |||::||||||   ||||||||||||||| |||
Db         61 GVASVLAMLQLTTGGETRQQIQEAMQFKIEEKGMAPAFHRLYKELMGPWNKDEISTADAI 120

Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
              ||||||:|| ||||:|||||:|||||||||||||||:||||| |||||||:|||:|||
Db        121 FVQRDLELVHGFMPNFFRLFRTTVKQVDFSEVERARFIVNDWVKRHTKGMISDLLGEGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
              |||||||||||||||||| |||:|:|| ||||||||||:|||||||||||||||||||||
Db        181 DQLTRLVLVNALYFNGQWKMPFPESNTHHRLFHKSDGSTISVPMMAQTNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
              | |||||||||||:|||| |||||||||||||||:|| |:||| |||||||| |||||||
Db        241 GRYYDILELPYHGNTLSMLIAAPYEKEVPLSALTSILDAELISQWKGNMTRLTRLLVLPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
              |||||||:|||:|||||||||||  ||||:| |||| |:|:|||||||||||||:|||
Db        301 FSLETEIDLRRPLENLGMTDMFRPSQADFSSFSDQEFLYVSQALQKVKIEVNESGTLASS 360

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
              |||::|||||||||||||||||||||||||||||||||||||
Db        361 STALVVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402


RESULT 23
US-10-368-995-2
; Sequence 2, Application US/10368995
; Publication No. US20030217371A1
; GENERAL INFORMATION:
;  APPLICANT: Vaughan, Douglas E.
;  APPLICANT:  Eren, Mesut
;  APPLICANT:  Declerk, Paul J.
;  TITLE OF INVENTION: THERAPEUTIC METHODS EMPLOYING PAI-1 INHIBITORS AND TRANSGENIC NON
;  TITLE OF INVENTION:  ANIMAL
;  FILE REFERENCE: 1242/43
;  CURRENT APPLICATION NUMBER: US/10/368,995
;  CURRENT FILING DATE:  2003-02-19
;  NUMBER OF SEQ ID NOS: 16
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 2
;   LENGTH: 402
;   TYPE: PRT
;   ORGANISM: Cow
US-10-368-995-2

  Query Match             86.1%;  Score 1784;  DB 4;  Length 402;
  Best Local Similarity   85.3%;  Pred. No. 1.2e-162;
  Matches  343;  Conservative   29;  Mismatches   30;  Indels    0;  Gaps    0;

Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
              |:|||   || |||||:|||||| : | |  | ||:||||:||||| :||||||||||||
Db          1 MRMSPVFACLALGLALIFGEGSASYQPQSAAASLATDFGVKVFQQVVRASKDRNVVFSPY 60

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
              ||||||||||||||||:|||| || |||::||||||   ||||||||||||||| |||
Db         61 GVASVLAMLQLTTGGETRQQIQEAMQFKIEEKGMAPAFHRLYKELMGPWNKDEISTADAI 120

Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
              ||||||:|| ||||:|||||:|||||||||||||||:||||| |||||||:|||:|||
Db        121 FVQRDLELVHGFMPNFFRLFRTTVKQVDFSEVERARFIVNDWVKRHTKGMISDLLGEGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
              |||||||||||||||||| |||:|:|| ||||||||||:|||||||||||||||||||||
Db        181 DQLTRLVLVNALYFNGQWKMPFPESNTHHRLFHKSDGSTISVPMMAQTNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
              | |||||||||||:|||| |||||||||||||||:|| |:||| |||||||| |||||||
Db        241 GRYYDILELPYHGNTLSMLIAAPYEKEVPLSALTSILDAELISQWKGNMTRLTRLLVLPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
              |||||||:|||:|||||||||||  ||||:| |||| |:|:|||||||||||||:|||
Db        301 FSLETEIDLRRPLENLGMTDMFRPSQADFSSFSDQEFLYVSQALQKVKIEVNESGTLASS 360

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
              |||::|||||||||||||||||||||||||||||||||||||
Db        361 STALVVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402


Search completed: December 13, 2005, 15:53:12
Job time : 172 secs
```

GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: December 13, 2005, 09:13:06 ; Search time 12 Seconds
(without alignments)
187.078 Million cell updates/sec

Title: US-10-506-406-2
Perfect score: 2071
Sequence: 1 MQMSPALTCLVLGLALVFGE.....FVVRHNPTGTVLFMGQVMEP 402

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 32527 seqs, 5584426 residues

Total number of hits satisfying chosen parameters: 32527

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Published_Applications_AA_New:*
1: /cgn2_6/ptodata/2/pubpaa/US09_NEW_PUB.pep:*
2: /cgn2_6/ptodata/2/pubpaa/US06_NEW_PUB.pep:*
3: /cgn2_6/ptodata/2/pubpaa/US07_NEW_PUB.pep:*
4: /cgn2_6/ptodata/2/pubpaa/US08_NEW_PUB.pep:*
5: /cgn2_6/ptodata/2/pubpaa/PCT_NEW_PUB.pep:*
6: /cgn2_6/ptodata/2/pubpaa/US10_NEW_PUB.pep:*
7: /cgn2_6/ptodata/2/pubpaa/US11_NEW_PUB.pep:*
8: /cgn2_6/ptodata/2/pubpaa/US60_NEW_PUB.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	2071	100.0	402	6	US-10-821-234-1581	Sequence 1581, Ap
2	761	36.7	398	6	US-10-821-234-1488	Sequence 1488, Ap
3	761	36.7	398	7	US-11-186-284-185	Sequence 185, App
4	461	22.3	423	6	US-10-821-234-900	Sequence 900, App
5	441	21.3	391	6	US-10-623-155-110	Sequence 110, App
6	440	21.2	425	7	US-11-096-276-2	Sequence 2, Appli
7	438.5	21.2	400	6	US-10-623-155-112	Sequence 112, App
8	436.5	21.1	417	7	US-11-147-047-39	Sequence 39, Appl
9	398.5	19.2	444	7	US-11-071-580-1	Sequence 1, Appli
10	394.5	19.0	444	6	US-10-131-826A-498	Sequence 498, App
11	312	15.1	500	6	US-10-821-234-1458	Sequence 1458, Ap
12	308.5	14.9	418	7	US-11-186-284-187	Sequence 187, App
13	305	14.7	418	6	US-10-821-234-1331	Sequence 1331, Ap
14	304	14.7	418	7	US-11-077-716-2	Sequence 2, Appli
15	219	10.6	362	7	US-11-010-874-18	Sequence 18, Appl
16	202.5	9.8	366	6	US-10-215-245A-2	Sequence 2, Appli
17	92.5	4.5	347	6	US-10-793-626-3326	Sequence 3326, Ap
18	87.5	4.2	530	6	US-10-131-826A-130	Sequence 130, App
19	87	4.2	1034	6	US-10-392-234A-30	Sequence 30, Appl
20	86	4.2	484	6	US-10-793-626-2498	Sequence 2498, Ap
21	86	4.2	1065	6	US-10-793-626-1212	Sequence 1212, Ap
22	83.5	4.0	448	6	US-10-793-626-1728	Sequence 1728, Ap
23	81.5	3.9	717	6	US-10-793-626-3022	Sequence 3022, Ap
24	81.5	3.9	952	6	US-10-821-234-1557	Sequence 1557, Ap
25	81.5	3.9	952	7	US-11-057-058-54	Sequence 54, Appl
26	81.5	3.9	997	7	US-11-057-058-33	Sequence 33, Appl
27	81.5	3.9	1011	7	US-11-057-058-31	Sequence 31, Appl
28	81	3.9	585	7	US-11-108-172-1067	Sequence 1067, Ap
29	80	3.9	686	7	US-11-065-943-52	Sequence 52, Appl
30	79	3.8	1386	7	US-11-091-643-6	Sequence 6, Appli
31	75	3.6	427	6	US-10-525-710-6	Sequence 6, Appli
32	75	3.6	480	6	US-10-336-263A-8	Sequence 8, Appli
33	75	3.6	3655	7	US-11-075-185-5	Sequence 5, Appli
34	74.5	3.6	316	6	US-10-131-826A-80	Sequence 80, Appl
35	74.5	3.6	715	7	US-11-089-551A-47	Sequence 47, Appl
36	74	3.6	301	7	US-11-074-176-362	Sequence 362, App
37	74	3.6	308	7	US-11-074-176-254	Sequence 254, App
38	74	3.6	673	7	US-11-058-727-14	Sequence 14, Appl
39	74	3.6	673	7	US-11-108-389-14	Sequence 14, Appl
40	74	3.6	826	6	US-10-793-626-1066	Sequence 1066, Ap
41	74	3.6	840	7	US-11-108-172-1102	Sequence 1102, Ap
42	74	3.6	902	7	US-11-057-058-64	Sequence 64, Appl
43	74	3.6	1210	7	US-11-058-727-4	Sequence 4, Appli
44	74	3.6	1210	7	US-11-108-389-4	Sequence 4, Appli
45	74	3.6	4384	6	US-10-821-234-1120	Sequence 1120, Ap

ALIGNMENTS

RESULT 1
US-10-821-234-1581
; Sequence 1581, Application US/10821234
; Publication No. US20050255114A1
; GENERAL INFORMATION:
; APPLICANT: Labat, Ivan
; APPLICANT: Stache-Crain, Birgit
; APPLICANT: Andarmani, Susan
; APPLICANT: Tang, Y. Tom
; TITLE OF INVENTION: Methods for Diagnosis and Treatment of Preeclampsia
; FILE REFERENCE: 821A
; CURRENT APPLICATION NUMBER: US/10/821,234
; CURRENT FILING DATE: 2004-04-07
; PRIOR APPLICATION NUMBER: US 60/462,047
; PRIOR FILING DATE: 2003-04-07
; NUMBER OF SEQ ID NOS: 1704
; SOFTWARE: pt SEQ_genes Version 1.0
; SEQ ID NO 1581
; LENGTH: 402
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-821-234-1581

Query Match 100.0%; Score 2071; DB 6; Length 402;
Best Local Similarity 100.0%; Pred. No. 7.3e-179;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120

Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
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                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
              ||||||||||||||||||||||||||||||||||||||||||
Db        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402


RESULT 2
US-10-821-234-1488
; Sequence 1488, Application US/10821234
; Publication No. US20050255114A1
; GENERAL INFORMATION:
;  APPLICANT: Labat, Ivan
;  APPLICANT:  Stache-Crain, Birgit
;  APPLICANT:  Andarmani, Susan
;  APPLICANT:  Tang, Y. Tom
;  TITLE OF INVENTION: Methods for Diagnosis and Treatment of Preeclampsia
;  FILE REFERENCE: 821A
;  CURRENT APPLICATION NUMBER: US/10/821,234
;  CURRENT FILING DATE:  2004-04-07
;  PRIOR APPLICATION NUMBER: US 60/462,047
;  PRIOR FILING DATE: 2003-04-07
;  NUMBER OF SEQ ID NOS: 1704
;  SOFTWARE: pt_SEQ_genes Version 1.0
; SEQ ID NO 1488
;   LENGTH: 398
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-821-234-1488

  Query Match             36.7%;  Score 761;  DB 6;  Length 398;
  Best Local Similarity   41.3%;  Pred. No. 3.5e-61;
  Matches  157;  Conservative   77;  Mismatches  142;  Indels    4;  Gaps    3;

Qy         25 HHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPYGVASVLAMLQLTTGGETQQQIQAA 84
              |  |   :  | |: |::|| |: ::    |:| ||:|:|||| ||||    | |::|:
Db         21 HFNPLSLEELGSNTGIQVFNQIVKSRPHDNIVISPHGIASVLGMLQLGADGRTKKQLAMV 80

Qy         85 MGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAIFVQRDLKLVQGFMPHFFRLFRSTV 144
              | : ::  |:   |: : | ::   ||| ::  :|:||:   ::   |:     :|:  |
Db         81 MRYGVN--GVGKILKKINKAIVSKKNKDIVTVANAVFVKNASEIEVPFVTRNKDVFQCEV 138

Qy        145 KQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAVD-QLTRLVLVNALYFNGQWKTPFP 203
              : |:| :   |   || |||  |: || |||    :|  |||||||:|| | ||: |
Db        139 RNVNFEDPASACDSINAWVKNETRDMIDNLLSPDLIDGVLTRLVLVNAVYFKGLWKSRFQ 198

Qy        204 DSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPDGHYYDILELPYHGDTLSMFIAAP 263
              :| :| |  :|| :  |||:|| : |     : |:  :|: :|||||:::|| || |
Db        199 PENTKKRTFVAADGKSYQVPMLAQLSVFRCGSTSAPNDLWYNFIELPYHGESISMLIALP 258

Qy        264 YEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPKFSLETEVDLRKPLENLGMTDMFR 323
              |   ||||:   :| : |  |    |      ::|||:   : ||::||: ||:||||
Db        259 TESSTPLSAIIPHISTKTIDSWMSIMVPKRVQVILPKFTAVAQTDLKEPLKVLGITDMFD 318

Qy        324 QFQADFTSL-SDQEPLHVAQALQKVKIEVNESGTVASSSTAVIVSARMAPEEIIMDRPFL 382
              :|:|  : :  | |||:  ||| ||||:| || ||::|  |: || :|   |:|||||
Db        319 SSKANFAKITTGSENLHVSHILQKAKIEVSEDGTKASAATTAILIARSSPPWFIVDRPFL 378

Qy        383 FVVRHNPTGTVLFMGQVMEP 402
              | :|||||| ||||||: :|
Db        379 FFIRHNPTGAVLFMGQINKP 398


RESULT 3
US-11-186-284-185
; Sequence 185, Application US/11186284
; Publication No. US20050266493A1
; GENERAL INFORMATION:
;  APPLICANT: Millennium Pharmaceuticals, Inc.
;  APPLICANT:  Berger, Allison
;  APPLICANT:  Guillemette, Tracy L.
;  APPLICANT:  Kamatkar, Shubhangi
;  APPLICANT:  Schlegel, Robert
;  APPLICANT:  Monahan, John E.
;  APPLICANT:  Thibodeau, Stephen N.
;  APPLICANT:  Burgart, Lawrence J.
;  TITLE OF INVENTION: NOVEL GENES, COMPOSITIONS, KITS, AND
;  TITLE OF INVENTION:  METHODS FOR IDENTIFICATION, ASSESSMENT, PREVENTION, AND
;  TITLE OF INVENTION:  THERAPY OF COLON CANCER
;  FILE REFERENCE: MPM01-029P2RNM
;  CURRENT APPLICATION NUMBER: US/11/186,284
;  CURRENT FILING DATE:  2005-07-21
;  PRIOR APPLICATION NUMBER: US/10/301,822
;  PRIOR FILING DATE: 2002-11-21
;  PRIOR APPLICATION NUMBER: US 60/339,971
;  PRIOR FILING DATE: 2001-12-10
;  PRIOR APPLICATION NUMBER: US 60/361,978
;  PRIOR FILING DATE: 2002-03-05
;  PRIOR APPLICATION NUMBER: US 60/381,988
;  PRIOR FILING DATE: 2002-05-20
;  NUMBER OF SEQ ID NOS: 228
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 185
;   LENGTH: 398
;   TYPE: PRT
;   ORGANISM: Homo Sapiens
US-11-186-284-185

  Query Match             36.7%;  Score 761;  DB 7;  Length 398;
  Best Local Similarity   41.3%;  Pred. No. 3.5e-61;
  Matches  157;  Conservative   77;  Mismatches  142;  Indels    4;  Gaps    3;

Qy         25 HHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPYGVASVLAMLQLTTGGETQQQIQAA 84
              |  |   :  | |: |::|| |: ::    |:| ||:|:|||| ||||    | |::|:
Db         21 HFNPLSLEELGSNTGIQVFNQIVKSRPHDNIVISPHGIASVLGMLQLGADGRTKKQLAMV 80

Qy         85 MGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAIFVQRDLKLVQGFMPHFFRLFRSTV 144
              | : ::  |:   |: : | ::   ||| ::  :|:||:   ::   |:     :|:  |
Db         81 MRYGVN--GVGKILKKINKAIVSKKNKDIVTVANAVFVKNASEIEVPFVTRNKDVFQCEV 138

Qy        145 KQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAVD-QLTRLVLVNALYFNGQWKTPFP 203
              : |:| :   |   || |||  |: || |||    :|  |||||||:|| | ||: |
Db        139 RNVNFEDPASACDSINAWVKNETRDMIDNLLSPDLIDGVLTRLVLVNAVYFKGLWKSRFQ 198

Qy        204 DSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPDGHYYDILELPYHGDTLSMFIAAP 263
              :| :| |  :|| :  |||:|| : |     : |:  :|: :|||||:::|| || |
Db        199 PENTKKRTFVAADGKSYQVPMLAQLSVFRCGSTSAPNDLWYNFIELPYHGESISMLIALP 258

Qy        264 YEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPKFSLETEVDLRKPLENLGMTDMFR 323
              |   ||||:   :| : |  |    |      ::|||:   : ||::||: ||:||||
Db        259 TESSTPLSAIIPHISTKTIDSWMSIMVPKRVQVILPKFTAVAQTDLKEPLKVLGITDMFD 318

Qy        324 QFQADFTSL-SDQEPLHVAQALQKVKIEVNESGTVASSSTAVIVSARMAPEEIIMDRPFL 382
              :|:|  : :  | |||:  ||| ||||:| || ||::|  |: || :|   |:|||||
Db        319 SSKANFAKITTGSENLHVSHILQKAKIEVSEDGTKASAATTAILIARSSPPWFIVDRPFL 378

Qy        383 FVVRHNPTGTVLFMGQVMEP 402
              | :|||||| ||||||: :|
Db        379 FFIRHNPTGAVLFMGQINKP 398


RESULT 4
US-10-821-234-900
; Sequence 900, Application US/10821234
; Publication No. US20050255114A1
; GENERAL INFORMATION:
;  APPLICANT: Labat, Ivan
;  APPLICANT:  Stache-Crain, Birgit
;  APPLICANT:  Andarmani, Susan
;  APPLICANT:  Tang, Y. Tom
;  TITLE OF INVENTION: Methods for Diagnosis and Treatment of Preeclampsia
;  FILE REFERENCE: 821A
;  CURRENT APPLICATION NUMBER: US/10/821,234
;  CURRENT FILING DATE:  2004-04-07
;  PRIOR APPLICATION NUMBER: US 60/462,047
```

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;  PRIOR FILING DATE: 2003-04-07
;  NUMBER OF SEQ ID NOS: 1704
;  SOFTWARE: pt_SEQ_genes Version 1.0
; SEQ ID NO 900
;   LENGTH: 423
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-821-234-900

  Query Match             22.3%;  Score 461;  DB 6;  Length 423;
  Best Local Similarity   28.8%;  Pred. No. 3.4e-34;
  Matches  119;  Conservative   76;  Mismatches  162;  Indels   56;  Gaps    9;

Qy         38 FGVRVFQQVAQASKDRNVVFSPYGVASVLAMLQLTTGGETQQQIQAAMGF---------- 87
              | : :|: :|:||  :|:  ||: ::| :||: : : | |: |:   : |
Db         19 FALNLFKHLAKASPTQNLFLSPWSISSTMAMVYMGSRGSTEDQMAKVLQFNEVGANAVTP 78

Qy         88 ------------KIDDKGMAP--------------ALRHLYKELMGPWNKDEISTTDAIF 121
                         :  || |                : | |   :         : : : :|
Db         79 MTPENFTSCGFMQQIQKGSYPDAILQAQAADKIHSSFRSLSSAINASTGNYLLESVNKLF 138

Qy        122 VQRDLKLVQGFMPHFFRLFRSTVKQVDFSE-VERARFIINDWVKTHTKGMISNLLGKGAV 180
               ::     : ::    : : |  : ||| |  | ||  |  |||| ||| | ||| :|:|
Db        139 GEKSASFREEYIRLCQKYYSSEPQAVDFLECAEEARKKIYSWVKTQTKGKIPNLLPEGSV 198

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
              |  ||:|||||:|| |:|||||          |  :      | ||     | |
Db        199 DGDTRMVLVNAVYFKGKWKTPFEKKLNGLYPFRVNSAQRTPVQMMYLREKLNI------- 251

Qy        241 GHYYD----ILELPYHGDTLSMFIAAPYE---KEVPLSALTNILSAQLISHW--KGNMTR 291
              |:  |    ||||||  || :|||:  | |         |  | : ::   :: |  |  |
Db        252 GYIEDLKAQILELPYAGD-VSMFLLLPDEIADVSTGLELLESEITYDKLNKWTSKDKMAE 310

Qy        292 LPRLLVLPKFSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEV 351
                 : :|:| ||    :||  | ::|| | | : :|:|: :|::  | :::   :  ::|
Db        311 DEVEVYIPQFKLEEHYELRSILRSMGMEDAFNKGRANFSGMSERNDLFLSEVFHQAMVDV 370

Qy        352 NESGTVASSSTAVIVSARM--APEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
              || || |:: |  ::: |       : : | ||||:: |  |  :|| |:   |
Db        371 NEEGTEAAAGTGGVMTGRTGHGGPQFVADHPFLFLIMHKITNCILFFGRFSSP 423


RESULT 5
US-10-623-155-110
; Sequence 110, Application US/10623155
; Publication No. US20050261166A1
; GENERAL INFORMATION:
;  APPLICANT: Wang, Tongtong
;  APPLICANT:  Peckham, David W.
;  APPLICANT:  Retter, Marc W.
;  APPLICANT:  Fanger, Gary R.
;  TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
;  TITLE OF INVENTION:  AND DIAGNOSIS OF LUNG CANCER
;  FILE REFERENCE: 210121.455C20
;  CURRENT APPLICATION NUMBER: US/10/623,155
;  CURRENT FILING DATE:  2003-07-17
;  NUMBER OF SEQ ID NOS: 560
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 110
;   LENGTH: 391
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-623-155-110

  Query Match             21.3%;  Score 441;  DB 6;  Length 391;
  Best Local Similarity   27.4%;  Pred. No. 1.9e-32;
  Matches  107;  Conservative   92;  Mismatches  165;  Indels   26;  Gaps    8;

Qy         34 LASDFGVRVFQQVAQASKDRNVVFSPYGVASVLAMLQLTTGGETQQQIQ---------AA 84
                 :::  |  :|::: : : | |: ||| |: : : |: | | | |  |::         :
Db          7 VSTRLGFDLFKEL-KKTNDGNIFFSPVGILTAIGMVLLGTRGATASQLEEVFHSEKETKS 65

Qy         85 MGFKIDDKGMAPALRHLYK-------ELMGPWNKDEISTTDAIFVQRDLKLVQGFMPHFF 137
                          | ::| :       :::       |:    |  |:: |: :| ::    :| :: :
Db         66 SRIKAEEKEVIENTEAVHQQFQKFLTEISKLTNDYELNITNRLFGEKTYLFLQKYLDYVE 125

Qy        138 RLFRSTVKQVDF-SEVERARFIINDWVKTHTKGMISNLLGKGAVDQLTRLVLVNALYFNG 196
              : : :::: ||| :  : :|  || ||:: |   | :|   |::   |:|||| :|| |
Db        126 KYYHASLEPVDFVNAADESRKKINSWVESKTNEKIKDLFPDGSISSSTKLVLVNMVYFKG 185

Qy        197 QWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPDGHYYDILELPYHGDTL 256
              ||   |   :|     |  :  :: || || |:: |:   ||  :     || :||  : |
Db        186 QWDREFKKENTKEEKFWMNKSTSKSVQMMTQSHSFS---FTFLEDLQAKILGIPYKNNDL 242

Qy        257 SMFIAAPYEKEVPLSALTNILSAQLISHW--KGNMTRLPRLLVLPKFSLETEVDLRKPLE 314
              |||:  | : :  |  : : :| : :  |   |:|       | ||:| :|   ||   |
Db        243 SMFVLLPNDID-GLEKIIDKISPEKLVEWTSPGHMEERKVNLHLPRFEVEDSYDLEAVLA 301

Qy        315 NLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASSSTAVIVSARMAP-- 372
              :|| | | : :||:: :|    |:  : |    : | | || |:::| :  :   ||
Db        302 AMGMGDAFSEHKADYSGMSSGSGLYAQKFLHSSFVAVTEEGTEAAAATGIGFTVTSAPGH 361

Qy        373 EEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
              | :  : |||| :||| : ::|| |:   |
Db        362 ENVHCNHPFLFFIRHNESNSILFFGRFSSP 391


RESULT 6
US-11-096-276-2
; Sequence 2, Application US/11096276
; Publication No. US20050260726A1
; GENERAL INFORMATION:
;  APPLICANT: Hu, Yi
;  APPLICANT:  Nepomnichy, Boris
;  APPLICANT:  Walke, D. Wade
;  TITLE OF INVENTION: Novel Human Protease Inhibitor and Polynucleotides Encoding the S
;  FILE REFERENCE: LEX-0283-USA
;  CURRENT APPLICATION NUMBER: US/11/096,276
;  CURRENT FILING DATE:  2005-03-31
;  PRIOR APPLICATION NUMBER: US/10/419,277
;  PRIOR FILING DATE: 2003-04-17
;  PRIOR APPLICATION NUMBER: US/10/024,427
;  PRIOR FILING DATE: 2000-12-18
;  PRIOR APPLICATION NUMBER: US 60/256,287
;  PRIOR FILING DATE: 2000-12-18
;  NUMBER OF SEQ ID NOS: 3
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 2
;   LENGTH: 425
;   TYPE: PRT
;   ORGANISM: homo sapiens
US-11-096-276-2

  Query Match             21.2%;  Score 440;  DB 7;  Length 425;
  Best Local Similarity   26.2%;  Pred. No. 2.6e-32;
  Matches  111;  Conservative   89;  Mismatches  149;  Indels   74;  Gaps   10;

Qy         42 VFQQVAQASKDRNVVFSPYGVASVLAMLQLTTGGETQQQIQAAMGF----KIDDKGMAPA 97
              :||:: :  : :|: |||  ::: | |::|    ::  ||   : |    : : |   |
Db         15 LFQEIGKDDRHKNIFFSPLSLSAALGMVRLGARSDSAHQIDEVLHFNEFSQNESKEPDPC 74

Qy         98 LRHLYKELM------------------GPWNKDE----------------------IST 116
              |:  ::::                    |  | :                      :|
Db         75 LKSNKQKVLADSSLEGQKKTTEPLDQQAGSLNNESGLVSCYFGQLLSKLDRIKTDYTLSI 134

Qy        117 TDAIFVQRDLKLVQGFMPHFFRLFRSTVKQVDFSE-VERARFIINDWVKTHTKGMISNLL 175
               : :: :::  : | ::    : : :|:: ||| :  |::|  || ||:  ::| | |
Db        135 ANRLYGEQEPPICQEYLDGVIQFYHTTIESVDFQKNPEKSRQEINFWVECQSQGKIKELF 194

Qy        176 GKGAVDQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTE 235
              | |::  | ||||||:||  :|:| |           |:   :|| |      |:    :
Db        195 SKDAINAETVLVLVNAVYFKAKWETYFD---------HE---NTVDAPFCLNANENKSVK 242

Qy        236 FTTPDGHY---------YDILELPYHGDTLSMFIAAPYEKEVPLSALTNI---LSAQLIS 283
              |  | |             |||: |    ||||:  |   :  |  |  :   :: : :
Db        243 MMTQKGLYRIGFIEEVKAQILEMRYTKGKLSMFVLLPSHSKDNLKGLEELERKITYEKMV 302
```

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Qy        284 HWKG--NMTRLPRLLVLPKFSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVA 341
Db        303 AWSSSENMSEESVVLSFPRFTLEDSYDLNSILQDMGITDIFDETRADLTGISPSPNLYLS 362

Qy        342 QALQKVKIEVNESGTVASSSTAVIVSARMAPE--EIIMDRPFLFVVRHNPTGTVLFMGQV 399
Db        363 KIIHKTFVEVDENGTQAAAATGAVVSERSLRSWVEFNANHPFLFFIRHNKTQTILFYGRV 422

Qy        400 MEP 402
Db        423 CSP 425


RESULT 7
US-10-623-155-112
; Sequence 112, Application US/10623155
; Publication No. US20050261166A1
; GENERAL INFORMATION:
;  APPLICANT: Wang, Tongtong
;  APPLICANT:  Peckham, David W.
;  APPLICANT:  Retter, Marc W.
;  APPLICANT:  Fanger, Gary R.
;  TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
;  TITLE OF INVENTION:  AND DIAGNOSIS OF LUNG CANCER
;  FILE REFERENCE: 210121.455C20
;  CURRENT APPLICATION NUMBER: US/10/623,155
;  CURRENT FILING DATE:  2003-07-17
;  NUMBER OF SEQ ID NOS: 560
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 112
;   LENGTH: 400
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-623-155-112

  Query Match             21.2%;  Score 438.5;  DB 6;  Length 400;
  Best Local Similarity   27.1%;  Pred. No. 3.3e-32;
  Matches  108;  Conservative   91;  Mismatches  165;  Indels   35;  Gaps    8;

Qy         34 LASDFGVRVFQQVAQASKDRNVVFSPYGVASVLAMLQLTTGGETQQQIQ---------- 82
Db          7 VSTRLGFDLFKEL-KKTNDGNIFFSPVGILTAIGMVLLGTRGATASQLEEVFHSEKETKS 65

Qy         83 ------------AAMGFKIDD-KGMAPALRHLYKELMGPWNKDEISTTDAIFVQRDLKL 128
Db         66 SRIKAEEKEVVRIKAEGKEIENTEAVHQQFQKFLTEISKLTNDYELNITNRLFGEKTYLF 125

Qy        129 VQGFMPHFFRLFRSTVKQVDF-SEVERARFIINDWVKTHTKGMISNLLGKGAVDQLTRLV 187
Db        126 LQKYLDYVEKYYHASLEPVDFVNAADESRKKINSWVESKTNEKIKDLFPDGSISSSTKLV 185

Qy        188 LVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPDGHYYDIL 247
Db        186 LVNMVYFKGQWDREFKKENTKEEKFWMNKSTSKSVQMMTQSHSFS---FTFLEDLQAKIL 242

Qy        248 ELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHW--KGNMTRLPRLLVLPKFSLET 305
Db        243 GIPYKNNDLSMFVLLPNDID-GLEKIIDKISPEKLVEWTSPGHMEERKVNLHLPRFEVED 301

Qy        306 EVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASSSTAVI 365
Db        302 SYDLEAVLAAMGMGDAFSEHKADYSGMSSGSGLYAQKFLHSSFVAVTEEGTEAAAATGIG 361

Qy        366 VSARMAP--EEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
Db        362 FTVTSAPGHENVHCNHPFLFFIRHNESNSILFFGRFSSP 400


RESULT 8
US-11-147-047-39
; Sequence 39, Application US/11147047
; Publication No. US20050260668A1
; GENERAL INFORMATION:
;  APPLICANT: Agarwal, Pankaj
;  APPLICANT:  Murdock, Paul R.
;  APPLICANT:  Rizvi, Safia K.
;  APPLICANT:  Smith, Randall F.
;  APPLICANT:  Xiang, Zhaoying
;  TITLE OF INVENTION: NOVEL COMPOUNDS
;  FILE REFERENCE: GP50016
;  CURRENT APPLICATION NUMBER: US/11/147,047
;  CURRENT FILING DATE:  2005-06-07
;  PRIOR APPLICATION NUMBER: US/10/221,097
;  PRIOR FILING DATE: 2002-09-06
;  PRIOR APPLICATION NUMBER: PCT/US01/07143
;  PRIOR FILING DATE: 2001-03-05
;  PRIOR APPLICATION NUMBER: 60/187,107
;  PRIOR FILING DATE: 2000-03-06
;  PRIOR APPLICATION NUMBER: 60/236,874
;  PRIOR FILING DATE: 2000-10-03
;  PRIOR APPLICATION NUMBER: 60/188,916
;  PRIOR FILING DATE: 2000-03-13
;  PRIOR APPLICATION NUMBER: 60/237,846
;  PRIOR FILING DATE: 2000-10-03
;  NUMBER OF SEQ ID NOS: 52
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 39
;   LENGTH: 417
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-11-147-047-39

  Query Match             21.1%;  Score 436.5;  DB 7;  Length 417;
  Best Local Similarity   28.7%;  Pred. No. 5.3e-32;
  Matches  111;  Conservative   88;  Mismatches  165;  Indels   23;  Gaps    9;

Qy         27 PPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPYGVASVLAMLQLTTGGETQQQIQAAMG 86
Db         40 PASQVYSLNTDFAFRLYRRLVLETPSQNIFFSPVSVSTSLAMLSLGAHSVTKTQILQGLG 99

Qy         87 FKI---DDKGMAPALRHLYKELMGPWNKDEISTTDAIFVQRDLKLVQGFMPHFFRLFRST 143
Db        100 FNLTHTPESAIHQGFQHLVHSLTVPSKDLTLKMGSALFVKKELQLQANFLGNVKRLYEAE 159

Qy        144 VKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAVDQLTRLVLVNALYFNGQWKTPFP 203
Db        160 VFSTDFSNPSIAQARINSHVKKKTQGKVVDII--QGLDLLTAMVLVNHIFFKAKWEKPFH 217

Qy        204 DSSTHRRL-FHKSDGSTVSVPMMAQTNKFNY---TEFTTPDGHYYDILELPYHGDTLSMF 259
Db        218 PEYTRKNFPFLVGEQVTVHVPMMHQKEQFAFGVDTELNC------FVLQMDYKGDAVAFF 271

Qy        260 IAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPKFSLETEVDLRKPLENLGMT 319
Db        272 VLPSKGK---MRQLEQALSARTLRKWSHSLQKRWIEVFIPRFSISASYNLETILPKMGIQ 328

Qy        320 DMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGT--VASSSTAVIVSARMAPE--EI 375
Db        329 NVFDK-NADFSGIAKRDSLQVSKATHKAVLDVSEEGTEATAATTTKFIVRSKDGPSYFTV 387

Qy        376 IMDRPFLFVVRHNPTGTVLFMGQVMEP 402
Db        388 SFNRTFLMMITNKATDGILFLGKVENP 414


RESULT 9
US-11-071-580-1
; Sequence 1, Application US/11071580
; Publication No. US20050260708A1
; GENERAL INFORMATION:
;  APPLICANT: INCYTE GENOMICS, INC.
;  APPLICANT:  YUE, Henry
;  APPLICANT:  TANG, Y. Tom
;  APPLICANT:  BANDMAN, Olga
;  APPLICANT:  LAL, Preeti
```

```
;  APPLICANT:  BAUGHN, Mariah R.
;  APPLICANT:  AZIMZAI, Yalda
;  APPLICANT:  LU, Dyung Aina M.
;  APPLICANT:  YANG, Junming
;  TITLE OF INVENTION: PROTEASES AND PROTEASE INHIBITORS
;  FILE REFERENCE: PF-0727 PCT
;  CURRENT APPLICATION NUMBER: US/11/071,580
;  CURRENT FILING DATE:  2005-03-04
;  PRIOR APPLICATION NUMBER: 60/147,986
;  PRIOR FILING DATE: 1999-08-09
;  PRIOR APPLICATION NUMBER: 60/160,807
;  PRIOR FILING DATE: 1999-10-21
;  NUMBER OF SEQ ID NOS: 2
;  SOFTWARE: PERL Program
; SEQ ID NO 1
;    LENGTH: 444
;    TYPE: PRT
;    ORGANISM: Homo sapiens
;    FEATURE:
;    NAME/KEY: misc_feature
;    OTHER INFORMATION: Incyte ID No: 088718CD1
US-11-071-580-1

  Query Match             19.2%;  Score 398.5;  DB 7;  Length 444;
  Best Local Similarity   28.6%;  Pred. No. 1.5e-28;
  Matches  108;  Conservative   80;  Mismatches  174;  Indels   15;  Gaps    8;

Qy         31 VAHLASDFGVRVFQQVAQASKDRNVVFSPYGVASVLAMLQLTTGGETQQQIQAAM---GF 87
              :|    |:||  : ::::    | |:||||:|::  :  | |   | |: ||:  :
Db         75 LAKETSNFGFSLLRKISM-RHDGNMVFSPFGMSLAMTGLMLGATGPTETQIKRGLHLQAL 133

Qy         88 KIDDKGMAPALRHLYKELMGPWNKDEISTTDAIFVQRDLKLVQGFMPHFFRLFRSTVKQV 147
              |    |: |:|    :| :    :  :|     |: :|  : : |     | | :    :
Db        134 KPTKPGLLPSLFKGLRETLSRNLELGLSQGSFAFIHKDFDVKETFFNLSKRYFDTECVPM 193

Qy        148 DFSEVERARFIINDWVKTHTKGMISNLLGKGAVDQLTRLVLVNALYFNGQWKTPFPDSST 207
              :|    :|: ::| ::   |:| |  |  :  ::  |:|:||: : | |:| |||    |
Db        194 NFRNASQAKRLMNHYINKETRGKIPKLFDE--INPETKLILVDYILFKGKWLTPFDPVFT 251

Qy        208 HRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPDGHY-YDILELPYHGDTLSMFIAAPYEK 266
              ||      |: ||||    ||     :| | ::   :|:||| |:   : :    ||
Db        252 EVDTFHLDKYKTIKVPMMYGAGKF----ASTFDKNFRCHVLKLPYQGNATMLVVL--MEK 305

Qy        267 EVPLSALTNILSAQLISHWKGNMTRLPRLLVLPKFSLETEVDLRKPLENLGMTDMFRQFQ 326
              || : |:  |:  |  ||      :  ||| |: : :: : |  :|:  :|  |
Db        306 MGDHLALEDYLTTDLVETWLRNMKTRNMEVFFPKFKLDQKYEMHELLRQMGIRRIFSPF- 364

Qy        327 ADFTSLS-DQEPLHVAQALQKVKIEVNESGTVASSSTAVIVSARMAPEEIIMDRPFLFVV 385
              || : ||      | |:: ||:  |||:| || | :     ::|    |  | :|||| |::
Db        365 ADLSELSATGRNLQVSRVLQRTVIEVDERGTEAVAGILSEITAYSMPPVIKVDRPFHFMI 424

Qy        386 RHNPTGTVLFMGQVMEP 402
                :| :||:|:|: |
Db        425 YEETSGMLLFLGRVVNP 441


RESULT 10
US-10-131-826A-498
; Sequence 498, Application US/10131826A
; Publication No. US20050245730A1
; GENERAL INFORMATION:
;  APPLICANT: Baker,Kevin P.
;  APPLICANT:  Beresini,Maureen
;  APPLICANT:  DeForge,Laura
;  APPLICANT:  Desnoyers,Luc
;  APPLICANT:  Filvaroff,Ellen
;  APPLICANT:  Gao,Wei-Qiang
;  APPLICANT:  Gerritsen,Mary E.
;  APPLICANT:  Goddard,Audrey
;  APPLICANT:  Godowski,Paul J.
;  APPLICANT:  Gurney,Austin L.
;  APPLICANT:  Sherwood,Steven
;  APPLICANT:  Smith,Victoria
;  APPLICANT:  Stewart,Timothy A.
;  APPLICANT:  Tumas,Daniel
;  APPLICANT:  Watanabe,Colin K
;  APPLICANT:  Wood,William
;  APPLICANT:  Zhang, Zemin
;  TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
;  TITLE OF INVENTION:  ACIDS ENCODING THE SAME
;  FILE REFERENCE: P3330R1C128
;  CURRENT APPLICATION NUMBER: US/10/131,826A
;  CURRENT FILING DATE:  2002-04-24
;  PRIOR APPLICATION NUMBER: 60/049911
;  PRIOR FILING DATE: 1997-06-18
;  PRIOR APPLICATION NUMBER: 60/056974
;  PRIOR FILING DATE: 1997-08-26
;  PRIOR APPLICATION NUMBER: 60/059113
;  PRIOR FILING DATE: 1997-09-17
;  PRIOR APPLICATION NUMBER: 60/059115
;  PRIOR FILING DATE: 1997-09-17
;  PRIOR APPLICATION NUMBER: 60/059117
;  PRIOR FILING DATE: 1997-09-17
;  PRIOR APPLICATION NUMBER: 60/059122
;  PRIOR FILING DATE: 1997-09-17
;  PRIOR APPLICATION NUMBER: 60/059184
;  PRIOR FILING DATE: 1997-09-17
;  PRIOR APPLICATION NUMBER: 60/059263
;  PRIOR FILING DATE: 1997-09-18
;  PRIOR APPLICATION NUMBER: 60/059352
;  PRIOR FILING DATE: 1997-09-19
;  PRIOR APPLICATION NUMBER: 60/059588
;  PRIOR FILING DATE: 1997-09-19
;  Remaining Prior Application data removed - See File Wrapper or PALM.
;  NUMBER OF SEQ ID NOS: 550
; SEQ ID NO 498
;    LENGTH: 444
;    TYPE: PRT
;    ORGANISM: Homo Sapien
US-10-131-826A-498

  Query Match             19.0%;  Score 394.5;  DB 6;  Length 444;
  Best Local Similarity   28.4%;  Pred. No. 3.4e-28;
  Matches  107;  Conservative   81;  Mismatches  174;  Indels   15;  Gaps    8;

Qy         31 VAHLASDFGVRVFQQVAQASKDRNVVFSPYGVASVLAMLQLTTGGETQQQIQAAM---GF 87
              :|    |:||  : ::::    | |:||||:|::  :  | |   | |: ||:  :
Db         75 LAKETSNFGFSLLRKISM-RHDGNMVFSPFGMSLAMTGLMLGATGPTETQIKRGLHLQAL 133

Qy         88 KIDDKGMAPALRHLYKELMGPWNKDEISTTDAIFVQRDLKLVQGFMPHFFRLFRSTVKQV 147
              |    |: |:|    :| :    :  :|     |: :|  : : |     | | :    :
Db        134 KPTKPGLLPSLFKGLRETLSRNLELGLSQGSFAFIHKDFDVKETFFNLSKRYFDTECVPM 193

Qy        148 DFSEVERARFIINDWVKTHTKGMISNLLGKGAVDQLTRLVLVNALYFNGQWKTPFPDSST 207
              :|    :|: ::| ::   |:| |  |  :  ::  |:|:||: : | |:| |||    |
Db        194 NFRNASQAKRLMNHYINKETRGKIPKLFDE--INPETKLILVDYILFKGKWLTPFDPVFT 251

Qy        208 HRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPDGHY-YDILELPYHGDTLSMFIAAPYEK 266
              ||      |: ||||    ||     :| | ::   :|:||| |:   : :    ||
Db        252 EVDTFHLDKYKTIKVPMMYGAGKF----ASTFDKNFRCHVLKLPYQGNATMLVVL--MEK 305

Qy        267 EVPLSALTNILSAQLISHWKGNMTRLPRLLVLPKFSLETEVDLRKPLENLGMTDMFRQFQ 326
              || : |:  |:  |  ||      :  ||| |: : :: : |  :|:  :|  |
Db        306 MGDHLALEDYLTTDLVETWLRNMKTRNMEVFFPKFKLDQKYEMHELLRQMGIRRIFSPF- 364

Qy        327 ADFTSLS-DQEPLHVAQALQKVKIEVNESGTVASSSTAVIVSARMAPEEIIMDRPFLFVV 385
              || : ||      | |:: |::  |||:| || | :     ::|    |  | :|||| |::
Db        365 ADLSELSATGRNLQVSRVLRRTVIEVDERGTEAVAGILSEITAYSMPPVIKVDRPFHFMI 424

Qy        386 RHNPTGTVLFMGQVMEP 402
                :| :||:|:|: |
Db        425 YEETSGMLLFLGRVVNP 441


RESULT 11
US-10-821-234-1458
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```
; Sequence 1458, Application US/10821234
; Publication No. US20050255114A1
; GENERAL INFORMATION:
;  APPLICANT: Labat, Ivan
;  APPLICANT:  Stache-Crain, Birgit
;  APPLICANT:  Andarmani, Susan
;  APPLICANT:  Tang, Y. Tom
;  TITLE OF INVENTION: Methods for Diagnosis and Treatment of Preeclampsia
;  FILE REFERENCE: 821A
;  CURRENT APPLICATION NUMBER: US/10/821,234
;  CURRENT FILING DATE:  2004-04-07
;  PRIOR APPLICATION NUMBER: US 60/462,047
;  PRIOR FILING DATE: 2003-04-07
;  NUMBER OF SEQ ID NOS: 1704
;  SOFTWARE: pt_SEQ_genes Version 1.0
; SEQ ID NO 1458
;   LENGTH: 500
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-821-234-1458

  Query Match             15.1%;  Score 312;  DB 6;  Length 500;
  Best Local Similarity   26.3%;  Pred. No. 1.1e-20;
  Matches  107;  Conservative   74;  Mismatches  162;  Indels   64;  Gaps   14;

Qy          11 VLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASK-DRNVVFSPYGVASVLAML 69
               ||| |||                    || ::::   :   | : |: |||: :||:|  :
Db         141 VLGDALV------------------DFSLKLYHAFSAMKKVETNMAFSPFSIASLLTQV 181

Qy          70 QLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAIFVQRDLKLV 129
               |  |  |:  ::: : :  |   :  ||:         :    :::   ||   || :
Db         182 LLGAGENTKTNLESILSYPKDFTCVHQALK--------GFTTKGVTSVSQIFHSPDLAIR 233

Qy         130 QGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAVDQLTRLVLV 189
               |: :  |   |:  :|  : :    :|| ||  :|   || ||      |  |||||:
Db         234 DTFV-NASRTLYSSSPRVLSNNSDANLELINTWVAKNTNNKISRLLDSLPSD--TRLVLL 290

Qy         190 NALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPDGHYYD---- 245
               ||:| : :||| |    |    ||  : | : ||||   |   |     |  |: |
Db         291 NAIYLSAKWKTTFDPKKTRMEPFHFKN-SVIKVPMM---NSKKY-----PVAHFIDQTLK 341

Qy         246 ----ILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRL------PRL 295
                   |:| ::   ||: |  |   :  |  :   ||    | :|  | :|      | |
Db         342 AKVGQLQLSHN---LSLVILVPQNLKHRLEDMEQALSP---SVFKAIMEKLEMSKFQPTL 395

Qy         296 LVLPKFSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESG 355
               | ||:  :  |  |:   :| |   |    :  :   |::   | |:    :  :|: |:|
Db         396 LTLPRIKVTTSQDMLSIMEKLEFFDF--SYDLNLCGLTEDPDLQVSAMQHQTVLELTETG 453

Qy         356 TVASSSTAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
                 |::::|: |:  :   |:   :||||::        :|||:| :|
Db         454 VEAAAASAISVARTLLVFEV--QQPFLFMLWDQQHKFPVFMGRVYDP 498


RESULT 12
US-11-186-284-187
; Sequence 187, Application US/11186284
; Publication No. US20050266493A1
; GENERAL INFORMATION:
;  APPLICANT: Millennium Pharmaceuticals, Inc.
;  APPLICANT:  Berger, Allison
;  APPLICANT:  Guillemette, Tracy L.
;  APPLICANT:  Kamatkar, Shubhangi
;  APPLICANT:  Schlegel, Robert
;  APPLICANT:  Monahan, John E.
;  APPLICANT:  Thibodeau, Stephen N.
;  APPLICANT:  Burgart, Lawrence J.
;  TITLE OF INVENTION: NOVEL GENES, COMPOSITIONS, KITS, AND
;  TITLE OF INVENTION:  METHODS FOR IDENTIFICATION, ASSESSMENT, PREVENTION, AND
;  TITLE OF INVENTION:  THERAPY OF COLON CANCER
;  FILE REFERENCE: MPM01-029P2RNM
;  CURRENT APPLICATION NUMBER: US/11/186,284
;  CURRENT FILING DATE:  2005-07-21
;  PRIOR APPLICATION NUMBER: US/10/301,822
;  PRIOR FILING DATE: 2002-11-21
;  PRIOR APPLICATION NUMBER: US 60/339,971
;  PRIOR FILING DATE: 2001-12-10
;  PRIOR APPLICATION NUMBER: US 60/361,978
;  PRIOR FILING DATE: 2002-03-05
;  PRIOR APPLICATION NUMBER: US 60/381,988
;  PRIOR FILING DATE: 2002-05-20
;  NUMBER OF SEQ ID NOS: 228
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 187
;   LENGTH: 418
;   TYPE: PRT
;   ORGANISM: Homo Sapiens
US-11-186-284-187

  Query Match             14.9%;  Score 308.5;  DB 7;  Length 418;
  Best Local Similarity   24.1%;  Pred. No. 1.7e-20;
  Matches   98;  Conservative   80;  Mismatches  212;  Indels   17;  Gaps    8;

Qy           3 MSPALTCLVLGLALVFGEGSAVHHPP--SYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
               :  ||   |   |      |:|    |  : :|  ::     ::| :|:     |:: ||
Db          13 LEAALAAEVKKPAAAAAPGTAEKLSPKAATLAERSAGLAFSLYQAMAKDQAVENILVSPV 72

Qy          61 GVASVLAMLQLTTGGETQQQIQAAMGF-KIDDKGMAPALRHLYKELMGPWNKDEISTT-- 117
                ||| | :: |      |  | :|  :   :: |: :   |  | : |    |    : |
Db          73 VVASSLGLVSLGGKATTASQAKAVLSAEQLRDEEVHAGLGELLRSLS---NSTARNVTWK 129

Qy         118 --DAIFVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLL 175
                 ::    :      |:    : :     :::| :  |    ||:|    | | :  :
Db         130 LGSRLYGPSSVSFADDFVRSSKQHYNCEHSKINFRDKRRPLQSINEWAAQTTDGKLPEVT 189

Qy         176 GKGAVDQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTE 235
                |::    :|||::|   |   |       | |  :   || | || :|  :|| :
Db         190 KD--VERTDGALLVNAMFFKPHWDEKFHHKMVDNRGFMVTRSYTVGVMMMHRTGLYNYYD 247

Qy         236 FTTPDGHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRL 295
                :     |:|:|      |: |  |:  | ||  |  :|: : :  | | | :
Db         248 ---DEKEKLQIVEMPLAHKLSSLIILMPHHVE-PLERLEKLLTKEQLKIWMGKMQKKAVA 303

Qy         296 LVLPKFSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESG 355
               : |||  :|   ||:| |  ||:|:|   : :|| : :| :: |::|          |:: |
Db         304 ISLPKGVVEVTHDLQKHLAGLGLTEAIDKNKADLSRMSGKKDLYLASVFHATAFELDTDG 363

Qy         356 TVASSSTAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
                         | :|:    | ||:|:||   :|::||:|::: |
Db         364 NPFDQDIYGREELR-SPKLFYADHPFIFLVRDTQSGSLLFIGRLVRP 409


RESULT 13
US-10-821-234-1331
; Sequence 1331, Application US/10821234
; Publication No. US20050255114A1
; GENERAL INFORMATION:
;  APPLICANT: Labat, Ivan
;  APPLICANT:  Stache-Crain, Birgit
;  APPLICANT:  Andarmani, Susan
;  APPLICANT:  Tang, Y. Tom
;  TITLE OF INVENTION: Methods for Diagnosis and Treatment of Preeclampsia
;  FILE REFERENCE: 821A
;  CURRENT APPLICATION NUMBER: US/10/821,234
;  CURRENT FILING DATE:  2004-04-07
;  PRIOR APPLICATION NUMBER: US 60/462,047
;  PRIOR FILING DATE: 2003-04-07
;  NUMBER OF SEQ ID NOS: 1704
;  SOFTWARE: pt_SEQ_genes Version 1.0
; SEQ ID NO 1331
;   LENGTH: 418
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-821-234-1331

  Query Match             14.7%;  Score 305;  DB 6;  Length 418;
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  Best Local Similarity   23.7%;  Pred. No. 3.4e-20;
  Matches   94;  Conservative   87;  Mismatches  189;  Indels   26;  Gaps   10;

Qy          15 ALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPYGVASVLAMLQLTTG 74
               |||  |      | : :|   |:||  :::  :  |   ||: ||  ||: |: | |
Db          38 ALVEEEDPFFKVPVNKLAAAVSNFGYDLYRVRSSTSPTTNVLLSPLSVATALSALSLGAE 97

Qy          75 GETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWN--KDEISTTDAIFVQRDLKLVQGF 132
               |:  |  |: :   |  :| :  ||||:      :  : :   |  :: |::   |
Db          98 QRTESIIHRALYY---DLISSPDIHGTYKELLDTVTAPQKNLKSASRIVFEKKLRIKSSF 154

Qy         133 MPHFFRLFRSTVK------QVDFSEVERARFIINDWVKTHTKGMISNLLGKGAVDQLTRL 186
               :    : : :  :      ::|  |       ||:||:   || ::    |   |::: :
Db         155 VAPLEKSYGTRPRVLTGNPRLDLQE-------INNWVQAQMKGKLARST-KEIPDEIS-I 205

Qy         187 VLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPDGHYYDI 246
               :|:   :| ||| | |    |   |:  :  || ||||:         :  .       |
Db         206 LLLGVAHFKGQWVTKFDSRKTSLEDFYLDEERTVRVPMMSDPKA--VLRYGLDSDLSCKI 263

Qy         247 LELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPKFSLETE 306
               :||  | ::|:    | :    |::: |      :  :  :| :|| |  |
Db         264 AQLPLTG-SMSIIFFLPLKVTQNLTLIEESLTSEFIHDIDRELKTVQAVLTVPKLKLSYE 322

Qy         307 VDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASSSTAVIV 366
               ::  | |: : :  :|      ||: ::  :|: : |   :   | || |   : |  :
Db         323 GEVTKSLQEMKLQSLFD--SPDFSKITG-KPIKLTQVEHRAGFEWNEDGAGTTPSPGLQP 379

Qy         367 SARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
               :    | :  :::||:||:|   || :||:|::::|
Db         380 AHLTFPLDYHLNQPFIFVLRDTDTGALLFIGKILDP 415


RESULT 14
US-11-077-716-2
; Sequence 2, Application US/11077716
; Publication No. US20050260180A1
; GENERAL INFORMATION:
;  APPLICANT: WEI, LISA
;  APPLICANT:  RASMUSSEN, HENRIK S
;  TITLE OF INVENTION: MATERIALS AND METHODS FOR TREATING VASCULAR LEAKAGE IN THE EYE
;  FILE REFERENCE: 233988
;  CURRENT APPLICATION NUMBER: US/11/077,716
;  CURRENT FILING DATE:  2005-03-11
;  PRIOR APPLICATION NUMBER: US 60/552,768
;  PRIOR FILING DATE: 2004-03-12
;  NUMBER OF SEQ ID NOS: 3
;  SOFTWARE: PatentIn version 3.2
; SEQ ID NO 2
;   LENGTH: 418
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-11-077-716-2

  Query Match           14.7%;  Score 304;  DB 7;  Length 418;
  Best Local Similarity   23.7%;  Pred. No. 4.2e-20;
  Matches   94;  Conservative   87;  Mismatches  189;  Indels   26;  Gaps   10;

Qy          15 ALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPYGVASVLAMLQLTTG 74
               |||  |      | : :|   |:||  :::  :  |   ||: ||  ||: |: | |
Db          38 ALVEEEDPFFKVPVNKLAAAVSNFGYDLYRVRSSMSPTTNVLLSPLSVATALSALSLGAE 97

Qy          75 GETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWN--KDEISTTDAIFVQRDLKLVQGF 132
               |:  |  |: :   |  :| :  ||||:      :  : :   |  :: |::   |
Db          98 QRTESIIHRALYY---DLISSPDIHGTYKELLDTVTAPQKNLKSASRIVFEKKLRIKSSF 154

Qy         133 MPHFFRLFRSTVK------QVDFSEVERARFIINDWVKTHTKGMISNLLGKGAVDQLTRL 186
               :    : : :  :      ::|  |       ||:||:   || ::    |   |::: :
Db         155 VAPLEKSYGTRPRVLTGNPRLDLQE-------INNWVQAQMKGKLARST-KEIPDEIS-I 205

Qy         187 VLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPDGHYYDI 246
               :|:   :| ||| | |    |   |:  :  || ||||:         :  .       |
Db         206 LLLGVAHFKGQWVTKFDSRKTSLEDFYLDEERTVRVPMMSDPKA--VLRYGLDSDLSCKI 263

Qy         247 LELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPKFSLETE 306
               :||  | ::|:    | :    |::: |      :  :  :| :|| |  |
Db         264 AQLPLTG-SMSIIFFLPLKVTQNLTLIEESLTSEFIHDIDRELKTVQAVLTVPKLKLSYE 322

Qy         307 VDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASSSTAVIV 366
               ::  | |: : :  :|      ||: ::  :|: : |   :   | || |   : |  :
Db         323 GEVTKSLQEMKLQSLFD--SPDFSKITG-KPIKLTQVEHRAGFEWNEDGAGTTPSPGLQP 379

Qy         367 SARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
               :    | :  :::||:||:|   || :||:|::::|
Db         380 AHLTFPLDYHLNQPFIFVLRDTDTGALLFIGKILDP 415


RESULT 15
US-11-010-874-18
; Sequence 18, Application US/11010874
; Publication No. US20050250694A1
; GENERAL INFORMATION:
;  APPLICANT: Ma, Jian-Xing
;  TITLE OF INVENTION: COMPOUNDS USEFUL IN INHIBITING VASCULAR LEAKAGE, INFLAMMATION AND
;  TITLE OF INVENTION:  FIBROSIS AND METHODS OF MAKING AND USING SAME
;  FILE REFERENCE: 5820.656
;  CURRENT APPLICATION NUMBER: US/11/010,874
;  CURRENT FILING DATE:  2004-12-13
;  PRIOR APPLICATION NUMBER: 10/963,115
;  PRIOR FILING DATE: 2004-10-12
;  PRIOR APPLICATION NUMBER: 60/510,620
;  PRIOR FILING DATE: 2003-10-10
;  PRIOR APPLICATION NUMBER: 60/528,647
;  PRIOR FILING DATE: 2003-12-11
;  NUMBER OF SEQ ID NOS: 18
;  SOFTWARE: PatentIn version 3.3
; SEQ ID NO 18
;   LENGTH: 362
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-11-010-874-18

  Query Match           10.6%;  Score 219;  DB 7;  Length 362;
  Best Local Similarity   22.9%;  Pred. No. 1.5e-12;
  Matches   77;  Conservative   71;  Mismatches  162;  Indels   26;  Gaps   10;

Qy          15 ALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPYGVASVLAMLQLTTG 74
               |||  |      | : :|   |:||  :::  :  |   ||: ||  ||: |: | |
Db          38 ALVEEEDPFFKVPVNKLAAAVSNFGYDLYRVRSSMSPTTNVLLSPLSVATALSALSLGAE 97

Qy          75 GETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWN--KDEISTTDAIFVQRDLKLVQGF 132
               |:  |  |: :   |  :| :  ||||:      :  : :   |  :: |::   |
Db          98 QRTESIIHRALYY---DLISSPDIHGTYKELLDTVTAPQKNLKSASRIVFEKKLRIKSSF 154

Qy         133 MPHFFRLFRSTVK------QVDFSEVERARFIINDWVKTHTKGMISNLLGKGAVDQLTRL 186
               :    : : :  :      ::|  |       ||:||:   || ::    |   |::: :
Db         155 VAPLEKSYGTRPRVLTGNPRLDLQE-------INNWVQAQMKGKLARST-KEIPDEIS-I 205

Qy         187 VLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPDGHYYDI 246
               :|:   :| ||| | |    |   |:  :  || ||||:         :  .       |
Db         206 LLLGVAHFKGQWVTKFDSRKTSLEDFYLDEERTVRVPMMSDPKA--VLRYGLDSDLSCKI 263

Qy         247 LELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPKFSLETE 306
               :||  | ::|:    | :    |::: |      :  :  :| :|| |  |
Db         264 AQLPLTG-SMSIIFFLPLKVTQNLTLIEESLTSEFIHDIDRELKTVQAVLTVPKLKLSYE 322

Qy         307 VDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASSSTAVIV 366
               ::  | |: : :  :|      ||: ::  :|: : |   :   | || |   : |  :
Db         323 GEVTKSLQEMKLQSLFD--SPDFSKITG-KPIKLTQVEHRAGFEWNEDGAGTTPSPGLQP 379

Qy         367 SARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
               :    | :  :::||:||:|   || :||:|::::|
Db         380 AHLTFPLDYHLNQPFIFVLRDTDTGALLFIGKILDP 415


Search completed: December 13, 2005, 09:26:58
Job time : 14 secs
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OM protein - protein search, using sw model

Run on: December 13, 2005, 09:01:30 ; Search time 39 Seconds
(without alignments)
991.773 Million cell updates/sec

Title: US-10-506-406-2
Perfect score: 2071
Sequence: 1 MQMSPALTCLVLGLALVFGE.....FVVRHNPTGTVLFMGQVMEP 402

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 283416 seqs, 96216763 residues

Total number of hits satisfying chosen parameters: 283416

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : PIR_80:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	2071	100.0	402	1	ITHUP1	plasminogen activa
2	1784	86.1	402	1	S06745	plasminogen activa
3	1746	84.3	400	2	JC4265	plasminogen activa
4	1680	81.1	402	1	A35032	plasminogen activa
5	1626	78.5	402	1	A34761	plasminogen activa
6	796.5	38.5	397	2	I48717	proteinase inhibit
7	791.5	38.2	397	2	B27496	proteinase inhibit
8	761	36.7	398	2	A37274	glia-derived nexin
9	620	29.9	410	2	S70647	neuroserpin precur
10	503.5	24.3	378	2	S38962	serpin - pig
11	498.5	24.1	416	2	B29131	kallikrein-binding
12	498	24.0	379	2	A42421	leukocyte elastase
13	490	23.7	413	2	JX0267	alpha-1-antiprotei
14	487.5	23.5	418	2	S23675	contrapsin-related
15	486	23.5	413	2	JX0154	alpha-1-antiprotei
16	483.5	23.3	390	2	I38202	leupin precursor -
17	480	23.2	411	1	ITRT	alpha-1-antitrypsi
18	480	23.2	413	2	S54981	alpha-1-antiprotei
19	479	23.1	379	2	S27383	elastase inhibitor
20	479	23.1	403	2	S08102	serine proteinase
21	476	23.0	413	2	I49473	alpha-1 proteinase
22	474.5	22.9	464	1	XHHU3	antithrombin III p
23	472	22.8	413	2	I49472	alpha-1 proteinase
24	470.5	22.7	465	2	I59611	antithrombin III -
25	469	22.6	415	2	A32853	plasminogen activa
26	468.5	22.6	408	2	A55533	intracellular coag
27	468	22.6	376	1	A48681	placental thrombin
28	468	22.6	413	2	I49470	alpha-1 proteinase
29	467.5	22.6	374	2	A59273	proteinase inhibit
30	466.5	22.5	390	2	I38201	squamous cell carc
31	465.5	22.5	416	2	S19896	plasminogen activa
32	465	22.5	418	1	S31507	serine proteinase
33	459	22.2	418	2	JH0494	alpha-1-antichymot
34	458.5	22.1	418	2	JX0129	contrapsin precurs
35	458.5	22.1	431	1	JX0364	antithrombin III -
36	458	22.1	413	2	A54968	alpha-1-antitrypsi
37	455	22.0	361	2	A24470	probable proteinas
38	455	22.0	369	2	B36418	MAP1 protein - myx
39	455	22.0	413	2	I49474	alpha-1 proteinase
40	455	22.0	415	2	S20047	plasminogen activa
41	454	21.9	374	2	AH1903	hypothetical prote
42	453.5	21.9	416	2	S21097	alpha-1-antitrypsi
43	453.5	21.9	465	1	S28219	antithrombin III p
44	452.5	21.8	418	2	A39567	thyroxine-binding
45	451.5	21.8	408	2	S11320	serine proteinase

ALIGNMENTS

RESULT 1
ITHUP1
plasminogen activator inhibitor 1 precursor [validated] - human
N;Alternate names: plasminogen activator inhibitor, endothelial
C;Species: Homo sapiens (man)
C;Date: 31-Mar-1988 #sequence_revision 31-Mar-1988 #text_change 05-Oct-2004
C;Accession: A28107; S02551; A26996; I59126; JS0397; A25693; A26146; A29100; A25895; A25
R;Bosma, P.J.; van den Berg, E.A.; Kooistra, T.; Siemieniak, D.R.; Slightom, J.L.
J. Biol. Chem. 263, 9129-9141, 1988
A;Title: Human plasminogen activator inhibitor-1 gene. Promoter and structural gene nucl
A;Reference number: A28107; MUID:88243790; PMID:3132455
A;Accession: A28107
A;Molecule type: DNA
A;Residues: 1-402 <BOS>
A;Cross-references: UNIPROT:P05121; UNIPARC:UPI0000000CAB; GB:J03764; NID:g189564; PIDN:
R;Strandberg, L.; Lawrence, D.; Ny, T.
Eur. J. Biochem. 176, 609-616, 1988
A;Title: The organization of the human-plasminogen-activator-inhibitor-1 gene. Implicati
A;Reference number: S02551; MUID:89005111; PMID:3262512
A;Accession: S02551
A;Molecule type: DNA
A;Residues: 1-14,'T',16-402 <STR>
A;Cross-references: UNIPARC:UPI00001731AA; EMBL:X13338; NID:g35244; PIDN:CAA31722.1; PID
A;Note: the complete translation is not annotated in GenBank entries HSPAI11, HSPAI12, H
R;Loskutoff, D.J.; Linders, M.; Keijer, J.; Veerman, H.; van Heerikhuizen, H.; Pannekoek
Biochemistry 26, 3763-3768, 1987
A;Title: Structure of the human plasminogen activator inhibitor 1 gene: nonrandom distri
A;Reference number: A26996; MUID:88000586; PMID:2820474
A;Accession: A26996
A;Molecule type: DNA
A;Residues: 1-402 <LOS>
A;Cross-references: UNIPARC:UPI0000000CAB; GB:M22321; GB:M17121; NID:g189576; PIDN:AAA60
A;Note: the sequence in GenBank entry HUMPAIB2, release 109.0, (PID:g189578) has the cod
R;van Zonneveld, A.J.; Curriden, S.A.; Loskutoff, D.J.
Proc. Natl. Acad. Sci. U.S.A. 85, 5525-5529, 1988
A;Title: Type 1 plasminogen activator inhibitor gene: functional analysis and glucocorti
A;Reference number: I59126; MUID:88289754; PMID:2840665
A;Accession: I59126
A;Status: translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-9 <ZON>
A;Cross-references: UNIPARC:UPI000000038D; GB:J03836; NID:g189579; PIDN:AAA60010.1; PID
R;Follo, M.; Ginsburg, D.
Gene 84, 447-453, 1989
A;Title: Structure and expression of the human gene encoding plasminogen activator inhib
A;Reference number: JS0397; MUID:90128289; PMID:2612914
A;Accession: JS0397
A;Molecule type: DNA
A;Residues: 85-86;88-93;166-171;231-236;298-302;331-336;360-365;388-393 <FOL>
A;Cross-references: UNIPARC:UPI000011EC8E; UNIPARC:UPI00001731AB; UNIPARC:UPI00001731AC
1B1; GB:M33136; NID:g189543
A;Note: sequences of the intron/exon boundaries are shown

R;Pannekoek, H.; Veerman, H.; Lambers, H.; Diergaarde, P.; Verweij, C.L.; van Zonneveld,
EMBO J. 5, 2539-2544, 1986
A;Title: Endothelial plasminogen activator inhibitor (PAI): a new member of the serpin g
A;Reference number: A91052; MUID:87053819; PMID:2430793
A;Accession: A25693
A;Molecule type: mRNA
A;Residues: 1-402 <PAN>
A;Cross-references: UNIPARC:UPI0000000CAB; GB:X04429; NID:g35271; PIDN:CAA28025.1; PID:g
R;Ginsburg, D.; Zeheb, R.; Yang, A.Y.; Rafferty, U.M.; Andreasen, P.A.; Nielsen, L.; Dan
J. Clin. Invest. 78, 1673-1680, 1986
A;Title: cDNA cloning of human plasminogen activator-inhibitor from endothelial cells.
A;Reference number: A92766; MUID:87058123; PMID:3097076
A;Accession: A26146
A;Molecule type: mRNA
A;Residues: 1-402 <GIN>
A;Cross-references: UNIPARC:UPI0000000CAB; GB:M16006; NID:g189541; PIDN:AAA60003.1; PID:
R;Wun, T.C.; Kretzmer, K.K.
FEBS Lett. 210, 11-16, 1987
A;Title: cDNA cloning and expression in E. coli of a plasminogen activator inhibitor (PA
A;Reference number: A29100; MUID:87105925; PMID:3026837
A;Accession: A29100
A;Molecule type: mRNA
A;Residues: 17-402 <WUN>
A;Cross-references: UNIPARC:UPI000016AE5E; GB:X04744; NID:g35275; PIDN:CAA28444.1; PID:g
A;Note: part of this sequence, including the amino end of the mature protein, was confir
R;Ny, T.; Sawdey, M.; Lawrence, D.; Millan, J.L.; Loskutoff, D.J.
Proc. Natl. Acad. Sci. U.S.A. 83, 6776-6780, 1986
A;Title: Cloning and sequence of a cDNA coding for the human beta-migrating endothelial-
A;Reference number: A25895; MUID:86313660; PMID:3092219
A;Accession: A25895
A;Molecule type: mRNA
A;Residues: 20-402 <NYT>
A;Cross-references: UNIPARC:UPI00001423AD; GB:M14083; NID:g189566; PIDN:AAA60008.1; PID:
R;Andreasen, P.A.; Riccio, A.; Welinder, K.G.; Douglas, R.; Sartorio, R.; Nielsen, L.S.;
FEBS Lett. 209, 213-218, 1986
A;Title: Plasminogen activator inhibitor type-1: reactive center and amino-terminal hete
A;Reference number: A91371; MUID:87080762; PMID:3025016
A;Accession: A25651
A;Molecule type: mRNA
A;Residues: 1-14,'T',16-47 <AND1>
A;Cross-references: UNIPARC:UPI000016AE5C; GB:X04729; NID:g35263; PIDN:CAA28438.1; PID:g
A;Accession: B25651
A;Molecule type: mRNA
A;Residues: 364-402 <AND2>
A;Cross-references: UNIPARC:UPI000016AE5B; GB:X04731; NID:g35260; PIDN:CAA28442.1; PID:g
R;Laug, W.E.; Aebersold, R.; Jong, A.; Rideout, W.; Bergman, B.L.; Baker, J.
Thromb. Haemost. 61, 517-521, 1989
A;Title: Isolation of multiple types of plasminogen activator inhibitors from vascular s
A;Reference number: A60436; MUID:90020174; PMID:2799763
A;Accession: A60436
A;Molecule type: protein
A;Residues: 225-235 <LAU>
A;Cross-references: UNIPARC:UPI00001731B2
R;Kjoller, L.; Martensen, P.M.; Sottrup-Jensen, L.; Justesen, J.; Rodenburg, K.W.; Andre
Eur. J. Biochem. 241, 38-46, 1996
A;Title: Conformational changes of the reactive-centre loop and beta-strand 5A accompany
A;Reference number: S74133; MUID:97054589; PMID:8898886
A;Accession: S74133
A;Molecule type: protein
A;Residues: 22-30;370-376 <KJO>
A;Cross-references: UNIPARC:UPI00001731B3; UNIPARC:UPI00001731B4
R;Stroemqvist, M.; Karlsson, K.E.; Bjoerquist, P.; Andersson, J.O.; Bystroem, M.; Hanssc
Biochim. Biophys. Acta 1295, 103-109, 1996
A;Title: Characterization of the complex of plasminogen activator inhibitor type 1 with
A;Reference number: S70346; MUID:96283799; PMID:8679667
A;Accession: S70346
A;Status: preliminary
A;Molecule type: protein
A;Residues: 370-375 <STO>
A;Cross-references: UNIPARC:UPI00001731B5
C;Comment: This inhibitor acts as "bait" for tissue plasminogen activator (see PIR:UKHUI
fibrinolysis. High concentrations of this protein have been associated with human throm
C;Comment: Three types of PAI have been identified (see also PIR:A32853 and PIR:A39339).

oma cells. Vascular endothelial cells may be the primary site of synthesis of plasma PAI
C;Comment: Glycosylation is not required for inhibitory activity.
C;Genetics:
A;Gene: GDB:PAI1; PLANH1
A;Cross-references: GDB:120297; OMIM:173360
A;Map position: 7q21.3-7q22
A;Introns: 91/1; 169/1; 234/1; 300/2; 334/1; 363/1; 391/1
C;Superfamily: serpin
C;Keywords: glycoprotein; serine proteinase inhibitor
F;1-23/Domain: signal sequence #status predicted <SIG>
F;24-402/Product: plasminogen activator inhibitor-1 #status experimental <MAT>
F;232,288,352/Binding site: carbohydrate (Asn) (covalent) #status predicted
F;369/Inhibitory site: Arg (plasminogen activator) #status predicted

Query Match 100.0%; Score 2071; DB 1; Length 402;
Best Local Similarity 100.0%; Pred. No. 2.5e-155;
Matches 402; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120

Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
              |||||||||||||||||||||||||||||||||||||||||||
Db        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
```

RESULT 2
S06745
plasminogen activator inhibitor-1 precursor - bovine
N;Alternate names: endothelial-cell plasminogen activator inhibitor; PAI-1
C;Species: Bos primigenius taurus (cattle)
C;Date: 28-Feb-1990 #sequence_revision 22-Apr-1995 #text_change 05-Oct-2004
C;Accession: S06745; A35855; S01324; S10906
R;Mimuro, J.; Sawdey, M.; Hattori, M.; Luskutoff, D.J.
Nucleic Acids Res. 17, 8872, 1989
A;Title: cDNA for bovine type 1 plasminogen activator inhibitor (PAI-1).
A;Reference number: S06745; MUID:90067867; PMID:2587231
A;Accession: S06745
A;Molecule type: mRNA
A;Residues: 1-402 <MIM>
A;Cross-references: UNIPROT:P13909; UNIPARC:UPI000002FBA6; EMBL:X16383; NID:g600; PIDN:C
R;Pepper, M.S.; Belin, D.; Montesano, R.; Orci, L.; Vassalli, J.D.
J. Cell Biol. 111, 743-755, 1990
A;Title: Transforming growth factor-beta 1 modulates basic fibroblast growth factor-induc
A;Reference number: A35855; MUID:90338128; PMID:1696269
A;Accession: A35855
A;Molecule type: mRNA
A;Residues: 153-235 <PEP>
A;Cross-references: UNIPARC:UPI000016C357; EMBL:X52906; NID:g598; PIDN:CAA37094.1; PID:g
R;Katagiri, K.; Okada, K.; Hattori, H.; Yano, M.
Eur. J. Biochem. 176, 81-87, 1988
A;Title: Bovine endothelial cell plasminogen activator inhibitor. Purification and heat

A;Reference number: S01324; MUID:88329072; PMID:3262060
A;Accession: S01324
A;Molecule type: protein
A;Residues: 24-49,'L',51-63 <KAT>
A;Cross-references: UNIPARC:UPI00001731B8
C;Comment: Three types of PAI have been identified. PAI-1 is an acid-stable glycoprotein
may be the primary site of synthesis of plasma PAI.
C;Comment: This inhibitor acts as "bait" for tissue plasminogen activator, urokinase, an
ysis.
C;Comment: Glycosylation is not a prerequisite for inhibitory activity.
C;Superfamily: serpin
C;Keywords: glycoprotein; serine proteinase inhibitor
F;1-23/Domain: signal sequence #status predicted <SIG>
F;24-402/Product: plasminogen activator inhibitor 1 #status predicted <MAT>
F;232,288,352/Binding site: carbohydrate (Asn) (covalent) #status predicted
F;369/Inhibitory site: Arg (plasminogen activator) #status predicted

Query Match 86.1%; Score 1784; DB 1; Length 402;
Best Local Similarity 85.3%; Pred. No. 9.8e-133;
Matches 343; Conservative 29; Mismatches 30; Indels 0; Gaps 0;

```
Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
              |:|||    || |||||:|||||| : | |   | ||:||||:|||||| :||||||||||
Db          1 MRMSPVFACLALGLALIFGEGSASYQPQSAAASLATDFGVKVFQQVVRASKDRNVVFSPY 60

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
              ||||||||||||||||:|||| || |||::||||||   ||||||||||||||| |||
Db         61 GVASVLAMLQLTTGGETRQQIQEAMQFKIEEKGMAPAFHRLYKELMGEWNKDEISTADAI 120

Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
              ||||||:|| ||||:|||||||:|||||||||||||||||:||||| |||||||:|||:|||
Db        121 FVQRDLELVHGFMPNFFRLFRTTVKQVDFSEVERARFIVNDWVKRHTKGMISDLLGEGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
              |||||||||||||||||| |||:|:|| ||||||||||:||||||||||||||||||||
Db        181 DQLTRLVLVNALYFNGQWKMPFPESNTHHRLFHKSDGSTISVPMMAQTNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
              | |||||||||||:|||| |||||||||||||||:|| |:||| |||||||| |||||||
Db        241 GRYYDILELPYHGNTLSMLIAAPYEKEVPLSALTSILDAELISQWKGNMTRLTRLLVLPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
              ||||||:|||:|||||||||||||  ||||:| |||| |:|:|||||||||||||||:|||
Db        301 FSLETEIDLRRPLENLGMTDMFRPSQADFSSFSDQEFLYVSQALQKVKIEVNESGTLASS 360

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
              |||::|||||||||||||||||||||||||||||||||||||
Db        361 STALVVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
```

RESULT 3
JC4265
plasminogen activator inhibitor type 1 precursor - American mink
C;Species: Mustela vison (American mink)
C;Date: 19-Oct-1995 #sequence_revision 08-Feb-1996 #text_change 05-Oct-2004
C;Accession: JC4265
R;Chuang, T.H.; Hamilton, R.T.; Nilsen-Hamilton, M.
Gene 162, 303-308, 1995
A;Title: Cloning of the mink plasminogen activator inhibitor type-1 messenger RNA: An mR
A;Reference number: JC4265; MUID:96032362; PMID:7557448
A;Accession: JC4265
A;Molecule type: mRNA
A;Residues: 1-400 <CHU>
A;Cross-references: UNIPROT:P50449; UNIPARC:UPI0000131217; EMBL:X58541; NID:g1164923; PI
A;Experimental source: lung CCL64 epithelial cells
C;Comment: This protein controls the activities of the plasminogen activators and plasmi
C;Genetics:
A;Gene: pai-1
C;Superfamily: serpin
C;Keywords: glycoprotein; plasminogen activator; serine proteinase inhibitor
F;1-21/Domain: signal sequence #status predicted <SIG>
F;22-400/Product: plasminogen activator inhibitor type 1 #status predicted <MAT>
F;230,286,350/Binding site: carbohydrate (Asn) (covalent) #status predicted
F;367/Inhibitory site: Arg (plasminogen activator) #status predicted

Query Match 84.3%; Score 1746; DB 2; Length 400;
Best Local Similarity 85.3%; Pred. No. 9.6e-130;
Matches 343; Conservative 25; Mismatches 32; Indels 2; Gaps 1;

```
Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
              ||||    || |||||||||| || :   :  | ||:||||:||:||||||||||:|||||
Db          1 MQMS--TVCLALGLALVFGEASASYLHETRAAELATDFGVKVFKQVAQASKDRNMVFSPY 58

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
              |:|||||||||| |||:|||| || |:||:|||||||| |||||||||||||||| |||
Db         59 GLASVLAMLQLTTAGETRQQIQEAMRFQIDEKGMAPALRQLYKELMGPWNKDEISTADAI 118

Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
              |||||||| ||||:|||||::|||||||||||||||||||||| |||||| :|||:| |
Db        119 FVQRDLKLVHGFMPYFFRLFQTTVKQVDFSEVERARFIINDWVKRHTKGMIGDLLGRGTV 178

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
              ||||||:|||||||||||||| | || ||||||||||||||||||||||||:||:
Db        179 DQLTRLMLVNALYFNGQWKTPFPKSGTHHRLFHKSDGSTVSVPMMAQTNKFNYTEFSTPE 238

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKDVPLSALTNILDAQLISQWKGNMTRRLRLLVLPK 300
              | |||||||||||||||||||||:|||||||| ||||| |||||||  |||||||
Db        239 GRYYDILELPYHGDTLSMFIAAPYEKDVPLSALTNILDAQLISQWKGNMTRRLRLLVLPK 298

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
              ||||:||:|| ||||||||||||  ||||:|||||| |:|:|||||||||||||||||||
Db        299 FSLESEVNLRGPLENLGMTDMFRPNQADFSSLSDQEALYVSQALQKVKIEVNESGTVASS 358

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
              |||:|||||||||||||||||||||||||||||||||||||
Db        359 STAIIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 400
```

RESULT 4
A35032
plasminogen activator inhibitor 1 precursor - rat
C;Species: Rattus norvegicus (Norway rat)
C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 05-Oct-2004
C;Accession: A35032; JT0490; A60581; A39120
R;Bruzdzinski, C.J.; Riordan-Johnson, M.; Nordby, E.C.; Suter, S.M.; Gelehrter, T.D.
J. Biol. Chem. 265, 2078-2085, 1990
A;Title: Isolation and characterization of the rat plasminogen activator inhibitor-1 gen
A;Reference number: A35032; MUID:90130456; PMID:2298740
A;Accession: A35032
A;Molecule type: DNA
A;Residues: 1-402 <BRU>
A;Cross-references: UNIPROT:P20961; UNIPARC:UPI0000131219; GB:J05206; NID:g205965; PIDN
R;Zeheb, R.; Gelehrter, T.D.
Gene 73, 459-468, 1988
A;Title: Cloning and sequencing of cDNA for the rat plasminogen activator inhibitor-1.
A;Reference number: JT0490; MUID:89211983; PMID:3149611
A;Accession: JT0490
A;Molecule type: mRNA
A;Residues: 1-402 <ZEH>
A;Cross-references: UNIPARC:UPI0000131219; GB:M24067; NID:g577500; PIDN:AAA56856.1; PID
R;Newman, M.J.; Lane, E.A.; Iannotti, A.M.; Nugent, M.A.; Pepinsky, R.B.; Keski-Oja, J.
Endocrinology 126, 2936-2946, 1990
A;Title: Characterization and purification of a secreted plasminogen activator inhibito
on in transformed NRK cells.
A;Reference number: A60581; MUID:90276328; PMID:2190800
A;Accession: A60581
A;Molecule type: protein
A;Residues: 24-48 <NEW>
A;Cross-references: UNIPARC:UPI00001731B6
R;Olson Jr., J.A.; Shiverick, K.T.; Ogilvie, S.; Buhi, W.C.; Raizada, M.K.
Proc. Natl. Acad. Sci. U.S.A. 88, 1928-1932, 1991
A;Title: Angiotensin II induces secretion of plasminogen activator inhibitor 1 and a ti
A;Reference number: A39120; MUID:91156719; PMID:2000398
A;Accession: A39120
A;Status: preliminary
A;Molecule type: protein

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A;Residues: 24-43,'G' <OLS>
A;Cross-references: UNIPARC:UPI00001731B7
C;Genetics:
A;Introns: 91/1; 169/1; 234/1; 300/2; 334/1; 363/1; 391/1
C;Superfamily: serpin
C;Keywords: glycoprotein
F;1-23/Domain: signal sequence #status predicted <SIG>
F;24-402/Product: plasminogen activator inhibitor-1 #status experimental <MAT>
F;88,232,288,352/Binding site: carbohydrate (Asn) (covalent) #status predicted
F;369/Inhibitory site: Arg (plasminogen activator) #status predicted

  Query Match             81.1%;  Score 1680;  DB 1;  Length 402;
  Best Local Similarity   80.8%;  Pred. No. 1.5e-124;
  Matches  325;  Conservative   36;  Mismatches   41;  Indels    0;  Gaps    0;

Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
              |||| ||||| ||| ||||:| |   | |: |  |::|||:||| | ||||||||||||
Db          1 MQMSSALTCLTLGLVLVFGKGFASPLPESHTAQQATNFGVKVFQHVVQASKDRNVVFSPY 60

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
              ||:||||||||| |:|:|||| |||| | ::| ||||| | ||||| |||:|||| |||
Db         61 GVSSVLAMLQLTTAGKTRQQIQDAMGFNISERGTAPALRKLSKELMGSWNKNEISTADAI 120

Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
              ||||||:||||||||||:|||:|||||||||||||||||||: |||||||:|| ||||
Db        121 FVQRDLELVQGFMPHFFKLFRTTVKQVDFSEVERARFIINDWVERHTKGMISDLLAKGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
              ::|||||||||||||||||| ::|||:||||||||:||||||| ||||||||||
Db        181 NELTRLVLVNALYFNGQWKTPFLEASTHQRLFHKSDGSTISVPMMAQNNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
              || |||||||||:|||||||||:||:|||||:|||| |:||  || |||||||||:|||
Db        241 GHEYDILELPYHGETLSMFIAAPFEKDVPLSAITNILDAELIRQWKSNMTRLPRLLILPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
              |||||||||| ||| |||||:|   |||||||||| | ||||||||||||||||||||||
Db        301 FSLETEVDLRGPLEKLGMTDIFSSTQADFTSLSDQEQLSVAQALQKVKIEVNESGTVASS 360

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
              |||::|||||| |:::|| |||||||||| |:|||||:|||
Db        361 STAILVSARMAPTEMVLDRSFLFVVRHNPTETILFMGQLMEP 402


RESULT 5
A34761
plasminogen activator inhibitor 1 homolog mr1 - mouse
C;Species: Mus musculus (house mouse)
C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 05-Oct-2004
C;Accession: A34761; S48208
R;Prendergast, G.C.; Diamond, L.E.; Dahl, D.; Cole, M.D.
Mol. Cell. Biol. 10, 1265-1269, 1990
A;Title: The c-myc-regulated gene mr1 encodes plasminogen activator inhibitor 1.
A;Reference number: A34761; MUID:90158593; PMID:2406566
A;Accession: A34761
A;Molecule type: mRNA
A;Residues: 1-402 <PRE>
A;Cross-references: UNIPROT:P22777; UNIPARC:UPI00000298B9; GB:M33960; NID:g200219; PIDN:
R;Lijnen, H.R.; van Hoef, B.; Beelen, V.; Collen, D.
Eur. J. Biochem. 224, 863-871, 1994
A;Title: Characterization of the murine plasma fibrinolytic system.
A;Reference number: S48202; MUID:95010076; PMID:7523120
A;Accession: S48208
A;Molecule type: protein
A;Residues: 'M',24-29 <LIJ>
A;Cross-references: UNIPARC:UPI00001731B9
C;Superfamily: serpin

  Query Match             78.5%;  Score 1626;  DB 1;  Length 402;
  Best Local Similarity   78.6%;  Pred. No. 2.7e-120;
  Matches  316;  Conservative   41;  Mismatches   45;  Indels    0;  Gaps    0;

Qy          1 MQMSPALTCLVLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
              |||| || ||:||| || |:|  :    |: || |:||||:||||| ||||||||||||
Db          1 MQMSSALACLILGLVLVSGKGFTLPLRESHTAHQATDFGVKVFQQVVQASKDRNVVFSPY 60

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAI 120
              ||:|||||||:|| |:|::||| |||||::|| | ||| | |||||||||:|||| |||
Db         61 GVSSVLAMLQMTTAGKTRRQIQDAMGFKVNEKGTAHALRQLSKELMGPWNKNEISTADAI 120

Qy        121 FVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAV 180
              ||||||:||||||||||:||:: ||||||||||||||||||||: ||||||::|| ||||
Db        121 FVQRDLELVQGFMPHFFKLFQTMVKQVDFSEVERARFIINDWVERHTKGMINDLLAKGAV 180

Qy        181 DQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPD 240
              |:|||||||||||:|||||| ::|||:|||||||||||||||||||:||||||||||||
Db        181 DELTRLVLVNALYFSGQWKTPFLEASTHQRLFHKSDGSTVSVPMMAQSNKFNYTEFTTPD 240

Qy        241 GHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPK 300
              |  ||::||||  ||||||||||:||:| |||||||| |:||  |||||||||||:|||
Db        241 GLEYDVVELPYQRDTLSMFIAAPFEKDVHLSALTNILDAELIRQWKGNMTRLPRLLILPK 300

Qy        301 FSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASS 360
              |||||||||| ||| ||| |||     |||||||||| | ||||||||:|||||||||||
Db        301 FSLETEVDLRGPLEKLGMPDMFSATLADFTSLSDQEQLSVAQALQKVRIEVNESGTVASS 360

Qy        361 STAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
              ||| ::|||||| |:::|| |||||||||| |:|||||||||
Db        361 STAFVISARMAPTEMVIDRSFLFVVRHNPTETILFMGQVMEP 402


RESULT 6
I48717
proteinase inhibitor nexin I precursor - mouse
C;Species: Mus musculus (house mouse)
C;Date: 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 05-Oct-2004
C;Accession: I48717; S70772; S35731
R;Vassalli, J.D.; Huarte, J.; Bosco, D.; Sappino, A.P.; Sappino, N.; Velardi, A.; Wohlwe
EMBO J. 12, 1871-1878, 1993
A;Title: Protease-nexin I as an androgen-dependent secretory product of the murine semina
A;Reference number: I48717; MUID:93259128; PMID:8491179
A;Accession: I48717
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 1-397 <RES>
A;Cross-references: UNIPROT:Q07235; UNIPARC:UPI0000004078; EMBL:X70296; NID:g551064; PID
A;Accession: S70772
A;Status: nucleic acid sequence not shown; translation not shown
A;Molecule type: DNA
A;Residues: 1-86 <VAS>
A;Cross-references: UNIPARC:UPI000016CFC8; EMBL:X70946; NID:g57930; PIDN:CAA50285.1; PID
A;Note: the nucleotide sequence was submitted to the EMBL Data Library, February 1993
C;Genetics:
A;Gene: PN-1
C;Superfamily: serpin
C;Keywords: serine proteinase inhibitor
F;1-19/Domain: signal sequence #status predicted <SIG>
F;20-397/Product: proteinase inhibitor nexin I #status predicted <MAT>

  Query Match             38.5%;  Score 796.5;  DB 2;  Length 397;
  Best Local Similarity   43.0%;  Pred. No. 5.5e-55;
  Matches  159;  Conservative   74;  Mismatches  134;  Indels    3;  Gaps    2;

Qy         34 LASDFGVRVFQQVAQASKDRNVVFSPYGVASVLAMLQLTTGGETQQQIQAAMGFKIDDKG 93
              | |: |::|| |: ::    ||| ||:|:||:| ||||   |:|::|:   | : ::  |
Db         30 LGSNTGIQVFNQIIKSRPHENVVVSPHGIASILGMLQLGADGKTKKQLSTVMRYNVN--G 87

Qy         94 MAPALRHLYKELMGPWNKDEISTTDAIFVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVE 153
              :   |: : | ::   ||| ::  :|:|::   |:   |       :|:  |: |:| :
Db         88 VGKVLKKINKAIVSKKNKDIVTVANAVFLRNGFKMEVPFAVRNKDVFQCEVQNVNFQDPA 147

Qy        154 RARFIINDWVKTHTKGMISNLLGKGAVD-QLTRLVLVNALYFNGQWKTPFPDSSTHRRLF 212
                |   || |||  |:||| |||    :|  |||||||||:|| | ||: |   || :| |
Db        148 SASESINFWVKNETRGMIDNLLSPNLIDGALTRLVLVNAVYFKGLWKSRFQPESTKKRTF 207

Qy        213 HKSDGSTVSVPMMAQTNKFNYTEFTTPDGHYYDILELPYHGDTLSMFIAAPYEKEVPLSA 272
```

```
                 ||  :  |||:||  : |      ||:|  :|:  :||||||:::|| || | |   ||||
Db        208 VAGDGKSYQVPMLAQLSVFRSGSTRTPNGLWYNFIELPYHGESISMLIALPTESSTPLSA 267

Qy        273 LTNILSAQLISHWKGNMTRLPRLLVLPKFSLETEVDLRKPLENLGMTDMFRQFQADFTSL 332
              :   :: :  |   |    |      ||||||:   : ||::||: ||:|:||   :|:|| :
Db        268 IIPHITTKTIDSWMNTMVPKRMQLVLPKFTAVAQTDLKEPLKALGITEMFEPSKANFTKI 327

Qy        333 SDQEPLHVAQALQKVKIEVNESGTVASSSTAVIVSARMAPEEIIMDRPFLFVVRHNPTGT 392
              :  | |||:  ||| ||||:| || ||::|  |: || :|   |:||||| :||||||
Db        328 TRSESLHVSHILQKAKIEVSEDGTKASAATTAILIARSSPPWFIVDRPFLFSIRHNPTGA 387

Qy        393 VLFMGQVMEP 402
              :||:||| :|
Db        388 ILFLGQVNKP 397


RESULT 7
B27496
proteinase inhibitor nexin 1 precursor - rat (fragment)
N;Alternate names: glia-derived nexin (GDN)
C;Species: Rattus norvegicus (Norway rat)
C;Date: 30-Jun-1988 #sequence_revision 30-Jun-1988 #text_change 05-Oct-2004
C;Accession: B27496; A34538; A42351; B42351; C42351
R;Sommer, J.; Gloor, S.M.; Rovelli, G.F.; Hofsteenge, J.; Nick, H.; Meier, R.; Monard, D
Biochemistry 26, 6407-6410, 1987
A;Title: cDNA sequence coding for a rat glia-derived nexin and its homology to members o
A;Reference number: A90519; MUID:88107544; PMID:3427015
A;Accession: B27496
A;Molecule type: mRNA
A;Residues: 1-397 <SOM>
A;Cross-references: UNIPROT:P07092; UNIPARC:UPI000002BD9D; GB:M17784; NID:g204283; PIDN:
A;Note: the authors translated the codon TGG for residue 156 as Thr
R;Nick, H.; Hofsteenge, J.; Shaw, E.; Rovelli, G.; Monard, D.
Biochemistry 29, 2417-2421, 1990
A;Title: Functional sites of glia-derived nexin (GDN): importance of the site reacting w
A;Reference number: A34538; MUID:90248459; PMID:2337608
A;Accession: A34538
A;Status: preliminary
A;Molecule type: protein
A;Residues: 364-394 <NIC>
A;Cross-references: UNIPARC:UPI000017631F
R;Rovelli, G.; Stone, S.R.; Guidolin, A.; Sommer, J.; Monard, D.
Biochemistry 31, 3542-3549, 1992
A;Title: Characterization of the heparin-binding site of glia-derived nexin/protease nex
A;Reference number: A42351; MUID:92207980; PMID:1554734
A;Accession: A42351
A;Molecule type: protein
A;Residues: 82-96 <ROV1>
A;Cross-references: UNIPARC:UPI00000E761E
A;Note: sequence extracted from NCBI backbone (NCBIP:93846)
A;Accession: B42351
A;Molecule type: protein
A;Residues: 165-178 <ROV2>
A;Cross-references: UNIPARC:UPI00000E5D4A
A;Note: sequence extracted from NCBI backbone (NCBIP:93851)
A;Accession: C42351
A;Molecule type: protein
A;Residues: 317-333 <ROV3>
A;Cross-references: UNIPARC:UPI00000E5B74
A;Note: sequence extracted from NCBI backbone (NCBIP:93856)
A;Note: peptide sequences were determined from rat cDNA cloned and expressed in yeast
C;Superfamily: serpin
C;Keywords: glycoprotein; serine proteinase inhibitor
F;1-20/Domain: signal sequence #status predicted <SIG>
F;21-397/Product: proteinase inhibitor nexin 1 #status predicted <MAT>
F;159/Binding site: carbohydrate (Asn) (covalent) #status predicted

  Query Match             38.2%;  Score 791.5;  DB 2;  Length 397;
  Best Local Similarity   42.7%;  Pred. No. 1.4e-54;
  Matches  158;  Conservative   72;  Mismatches  137;  Indels    3;  Gaps    2;

Qy         34 LASDFGVRVFQQVAQASKDRNVVFSPYGVASVLAMLQLTTGGETQQQIQAAMGFKIDDKG 93
              | || |::|| |: ::    ||| ||:|:||:| ||||   | |::|:   | : ::  |
Db        30 LGSDTGIQVFNQIIKSQPHENVVISPHGIASILGMLQLGADGRTKKQLSTVMRYNVN--G 87

Qy         94 MAPALRHLYKELMGPWNKDEISTTDAIFVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVE 153
              :   |: : | ::   ||| ::  :|:||:   |:  |       :|:  |: |:| :
Db         88 VGKVLKKINKAIVSKKNKDIVTVANAVFVRNGFKVEVPFAARNKEVFQCEVQSVNFQDPA 147

Qy        154 RARFIINDWVKTHTKGMISNLLGKGAVDQ-LTRLVLVNALYFNGQWKTPFPDSSTHRRLF 212
              |   || |||  |:||| |||    :|  ||:|||||:|| | ||: |   :| :| |
Db        148 SACDAINFWVKNETRGMIDNLLSPNLIDSALTKLVLVNAVYFKGLWKSRFQPENTKKRTF 207

Qy        213 HKSDGSTVSVPMMAQTNKFNYTEFTTPDGHYYDILELPYHGDTLSMFIAAPYEKEVPLSA 272
              || :  |||:|| : |      ||:| :|: :||||||:::|| || | |   ||||
Db        208 VAGDGKSYQVPMLAQLSVFRSGSTKTPNGLWYNFIELPYHGESISMLIALPTESSTPLSA 267

Qy        273 LTNILSAQLISHWKGNMTRLPRLLVLPKFSLETEVDLRKPLENLGMTDMFRQFQADFTSL 332
              :   :| : |: |   |      ||||||:   : ||::||: ||:|:||   :|:|  :
Db        268 IIPHISTKTINSWMNTMVPKRMQLVLPKFTALAQTDLKEPLKALGITEMFEPSKANFAKI 327

Qy        333 SDQEPLHVAQALQKVKIEVNESGTVASSSTAVIVSARMAPEEIIMDRPFLFVVRHNPTGT 392
              :  | |||:  ||| ||||:| || |:  |  |: || :|   |:||||| :||||||
Db        328 TRSESLHVSHILQKAKIEVSEDGTKAAVVTTAILIARSSPPWFIVDRPFLFCIRHNPTGA 387

Qy        393 VLFMGQVMEP 402
              :||:||| :|
Db        388 ILFLGQVNKP 397


RESULT 8
A37274
glia-derived nexin I precursor, splice form beta - human
N;Alternate names: glia-derived neurite promoting factor; proteinase inhibitor 7; protei
N;Contains: glia-derived nexin I precursor, splice form alpha
C;Species: Homo sapiens (man)
C;Date: 31-Dec-1991 #sequence_revision 31-Dec-1991 #text_change 05-Oct-2004
C;Accession: A37274; JJ0010; A27496; A26061; A24051
R;McGrogan, M.; Kennedy, J.; Li, M.P.; Hsu, C.; Scott, R.W.; Simonsen, C.C.; Baker, J.B
Bio/Technology 6, 172-177, 1988
A;Title: Molecular cloning and expression of two forms of human protease nexin I.
A;Reference number: JJ0010
A;Accession: A37274
A;Molecule type: mRNA
A;Residues: 1-398 <MCG1>
A;Cross-references: UNIPROT:P07093; UNIPARC:UPI0000049599
A;Experimental source: splice form beta
A;Accession: JJ0010
A;Molecule type: mRNA
A;Residues: 1-328,'R',331-398 <MCG2>
A;Cross-references: UNIPARC:UPI000000D9F3
A;Experimental source: splice form alpha
R;Sommer, J.; Gloor, S.M.; Rovelli, G.F.; Hofsteenge, J.; Nick, H.; Meier, R.; Monard, D
Biochemistry 26, 6407-6410, 1987
A;Title: cDNA sequence coding for a rat glia-derived nexin and its homology to members o
A;Reference number: A90519; MUID:88107544; PMID:3427015
A;Accession: A27496
A;Molecule type: mRNA
A;Residues: 1-328,'R',331-398 <SOM>
A;Cross-references: UNIPARC:UPI000000D9F3; GB:M17783; NID:g183063; PIDN:AAA35883.1; PID
R;Gloor, S.; Odink, K.; Guenther, J.; Nick, H.; Monard, D.
Cell 47, 687-693, 1986
A;Title: A glia-derived neurite promoting factor with protease inhibitory activity belo
A;Reference number: A26061; MUID:87051740; PMID:2877744
A;Accession: A26061
A;Molecule type: protein
A;Residues: 1-259,'S',261-398 <GLO>
A;Cross-references: UNIPARC:UPI0000017631D
R;Scott, R.W.; Bergman, B.L.; Bajpai, A.; Hersh, R.T.; Rodriguez, H.; Jones, B.N.; Barr
J. Biol. Chem. 260, 7029-7034, 1985
A;Title: Protease nexin. Properties and a modified purification procedure.
A;Reference number: A24051; MUID:85207723; PMID:3997857
A;Accession: A24051
A;Molecule type: protein
A;Residues: 20-47 <SCO>
A;Cross-references: UNIPARC:UPI0000017631E
```

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C;Genetics:
A;Gene: GDB:PI7; PNI
A;Cross-references: GDB:378380; OMIM:177010
A;Map position: 2q33-2q35
C;Superfamily: serpin
C;Keywords: alternative splicing; glycoprotein; serine proteinase inhibitor
F;1-19/Domain: signal sequence #status predicted <SIG>
F;20-398/Product: glia-derived nexin I, splice form beta #status experimental <MATA>
F;20-328,'R',331-398/Product: glia-derived nexin I, splice form alpha #status predicted
F;118,159,384/Binding site: carbohydrate (Asn) (covalent) #status predicted
F;365/Inhibitory site: Arg (thrombin, urokinase) #status predicted

  Query Match             36.7%;  Score 761;  DB 2;  Length 398;
  Best Local Similarity   41.3%;  Pred. No. 3.5e-52;
  Matches  157;  Conservative   77;  Mismatches  142;  Indels    4;  Gaps    3;

Qy         25 HHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPYGVASVLAMLQLTTGGETQQQIQAA 84
              |  |  :  | |: |::|| |: ::    |:| ||:|:|||| ||||   | |::|:
Db         21 HFNPLSLEELGSNTGIQVFNQIVKSRPHDNIVISPHGIASVLGMLQLGADGRTKKQLAMV 80

Qy         85 MGFKIDDKGMAPALRHLYKELMGPWNKDEISTTDAIFVQRDLKLVQGFMPHFFRLFRSTV 144
              | : ::  |:   |: : | ::   ||| ::  :|:||:   ::   |:     :|:  |
Db         81 MRYGVN--GVGKILKKINKAIVSKKNKDIVTVANAVFVKNASEIEVPFVTRNKDVFQCEV 138

Qy        145 KQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAVD-QLTRLVLVNALYFNGQWKTPFP 203
              : |:| :   |   || |||  |: || |||    :|  |||||||||:|| | ||: |
Db        139 RNVNFEDPASACDSINAWVKNETRDMIDNLLSPDLIDGVLTRLVLVNAVYFKGLWKSRFQ 198

Qy        204 DSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPDGHYYDILELPYHGDTLSMFIAAP 263
              :| :| |  :|| :  |||:|| : |     : |:  :|: :||||||:::|| || |
Db        199 PENTKKRTFVAADGKSYQVPMLAQLSVFRCGSTSAPNDLWYNFIELPYHGESISMLIALP 258

Qy        264 YEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPKFSLETEVDLRKPLENLGMTDMFR 323
              |   ||||:   :| : |  |    |       ::||||:   : ||::||: ||:||||
Db        259 TESSTPLSAIIPHISTKTIDSWMSIMVPKRVQVILPKFTAVAQTDLKEPLKVLGITDMFD 318

Qy        324 QFQADFTSL-SDQEPLHVAQALQKVKIEVNESGTVASSSTAVIVSARMAPEEIIMDRPFL 382
              :|:|  : :  | |||:  ||| |||||:| || ||::|  |: || :|   |:|||||
Db        319 SSKANFAKITTGSENLHVSHILQKAKIEVSEDGTKASAATTAILIARSSPPWFIVDRPFL 378

Qy        383 FVVRHNPTGTVLFMGQVMEP 402
              | :|||||| ||||||: :|
Db        379 FFIRHNPTGAVLFMGQINKP 398


RESULT 9
S70647
neuroserpin precursor - chicken
C;Species: Gallus gallus (chicken)
C;Date: 14-Feb-1997 #sequence_revision 13-Mar-1997 #text_change 05-Oct-2004
C;Accession: S70647; S77695
R;Osterwalder, T.; Contartese, J.; Stoeckli, E.T.; Kuhn, T.B.; Sonderegger, P.
EMBO J. 15, 2944-2953, 1996
A;Title: Neuroserpin, an axonally secreted serine protease inhibitor.
A;Reference number: S70647; MUID:96272154; PMID:8670795
A;Accession: S70647
A;Molecule type: mRNA
A;Residues: 1-410 <OST1>
A;Cross-references: UNIPROT:Q90935; UNIPARC:UPI000012FF88; EMBL:Z71930; NID:g1359667; PI
A;Experimental source: brain
A;Accession: S77695
A;Molecule type: protein
A;Residues: 17-40;243-257;288-293;309-317 <OST2>
A;Cross-references: UNIPARC:UPI000017632B; UNIPARC:UPI000017632C; UNIPARC:UPI000017632D;
C;Superfamily: serpin
C;Keywords: serine proteinase inhibitor
F;1-16/Domain: signal sequence #status predicted <SIG>
F;17-410/Product: neuroserpin #status experimental <MAT>

  Query Match             29.9%;  Score 620;  DB 2;  Length 410;
  Best Local Similarity   33.5%;  Pred. No. 4.6e-41;
  Matches  136;  Conservative   93;  Mismatches  149;  Indels   28;  Gaps    8;

Qy         11 VLGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPYGVASVLAMLQ 70
              :| | ::  :    : |   :| |:    | |: |:  | :| |::| |  :|  : |::
Db          6 LLSLLVLPSKAFKTNFPDETIAELS----VNVYNQLRAAREDENILFCPLSIAIAMGMIE 61

Qy         71 LTTGGETQQQIQAAMGFKIDDKGMAPALRH-----LYKELMGPWNKDE----ISTTDAIF 121
              |   | | ::|: ::||         :|::       |:|      :|    ::  ::::
Db         62 LGAHGTTLKEIRHSLGF--------DSLKNGEEFTFLKDLSDMATTEESHYVLNMANSLY 113

Qy        122 VQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAVD 181
              ||    : : |:    : |:: |: :|||:       || ||: ||  || : :
Db        114 VQNGFHVSEKFLQLVKKYFKAEVENIDFSQSAAVATHINKWVENHTNNMIKDFVSSRDFS 173

Qy        182 QLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEF---TT 238
              || |||:||:|| | ||: |   :|    | | | : :||| |  :| | ||   :
Db        174 ALTHLVLINAIYFKGNWKSQFRPENTRTFSFTKDDETEVQIPMMYQQGEFYYGEFSDGSN 233

Qy        239 PDGHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVL 298
              |  | :||:|| || :|| |     :|||  |  :: | ||: |  :: :    : |
Db        234 EAGGIYQVLEIPYEGDEISMMIVLS-RQEVPLVTLEPLVKASLINEWANSVKKQKVEVYL 292

Qy        299 PKFSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVA 358
              |:|::| |:||:  |: ||:|::| :  || |::|| : |::|:|  |  :|||| |: |
Db        293 PRFTVEQEIDLKDVLKGLGITEVFSR-SADLTAMSDNKELYLAKAFHKAFLEVNEEGSEA 351

Qy        359 SSSTAVIVSARMAP--EEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
              :::: :|  :|||    ::|:| || |:||:  ||||||||:|| |
Db        352 AAASGMIAISRMAVLYPQVIVDHPFFFLVRNRRTGTVLFMGRVMHP 397


RESULT 10
S38962
serpin - pig
C;Species: Sus scrofa domestica (domestic pig)
C;Date: 19-Mar-1997 #sequence_revision 19-Mar-1997 #text_change 05-Oct-2004
C;Accession: S38962
R;Teschauer, W.F.; Mentele, R.; Sommerhoff, C.P.
Eur. J. Biochem. 217, 519-526, 1993
A;Title: Primary structure of a porcine leukocyte serpin.
A;Reference number: S38962; MUID:94039085; PMID:7901009
A;Accession: S38962
A;Status: preliminary
A;Molecule type: protein
A;Residues: 1-378 <TES>
A;Cross-references: UNIPARC:UPI00001762F0
A;Note: the sequence from Fig. 6 is inconsistent with that from Fig. 5 in having 256-Asn
C;Superfamily: serpin

  Query Match             24.3%;  Score 503.5;  DB 2;  Length 378;
  Best Local Similarity   33.2%;  Pred. No. 6.1e-32;
  Matches  127;  Conservative   70;  Mismatches  154;  Indels   31;  Gaps   11;

Qy         38 FGVRVFQQVAQASKDRNVVFSPYGVASVLAMLQLTTGGETQQQIQAAMGF-KIDDKGMAP 96
              | : :|: : :::   |:  ||: ::| |||: | | | |: |:  |: | :  | |
Db         11 FALDLFRALNESNPAGNIFISPFSISSALAMILLGTRGNTEAQMSKALHFDTVKD----- 65

Qy         97 ALRHLYKELMGPWNKDEIS----TTDAIFVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEV 152
              :   :: |    ||   |      : :| ::    :  |:    : : : :  |||
Db         66 -IHSRFQSLNADINKCGASYILKLANRLFGEKTYHFLPEFLASTQKTYGAELASVDFLRA 124

Qy        153 -ERARFIINDWVKTHTKGMISNLLGKGAVDQLTRLVLVNALYFNGQWKTPFPDSSTHRRL 211
               | ||  ||:|||  |:| |  ||  | ||  |:|||||:|| | |:  |   :|
Db        125 SEEARKAINEWVKEQTEGKIPELLASGVVDSATKLVLVNAIYFKGSWQEKFMTEATKDAP 184

Qy        212 FHKSDGSTVSVPMMAQTNKFNYTEFTTPDGHYYD----ILELPYHGDTLSMFIAAPYEKE 267
              |  :   : :| || |  ||       | |:  :    :|||||  |  ||| |  |   |
Db        185 FRLNKKDSKTVKMMYQKKKF-------PFGYIKELKCRVLELPYQGKDLSMVILLPDSIE 237

Qy        268 VPLSALTNI---LSAQLISHW--KGNMTRLPRLLVLPKFSLETEVDLRKPLENLGMTDMF 322
              : |  |   |: : :  |    |:  |  : ||:| ||   ||  ||  ||: |:|
Db        238 DESTGLRKIEQHLTLEKLREWTKPDNLELLEVNVHLPRFRLEESYDLNAPLARLGVQDLF 297

Qy        323 RQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASSST-AVIVSARMAPEE-IIMDRP 380
              :|| | :|:   | ::: : |  :|||| || |:::|  : | | : |||  | | |
```

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Db        298 GS-RADLTGMSEARDLFISKVVHKSFVEVNEEGTEAAAATXGIAVFAMLMPEEDFIADHP 356

Qy        381 FLFVVRHNPTGTVLFMGQVMEP 402
              |:| :|||| :  :||:|::  |
Db        357 FIFFIRHNPSSNILFLGRLSSP 378


RESULT 11
B29131
kallikrein-binding protein precursor - rat
N;Alternate names: contrapsin-like protease inhibitor; growth hormone-induced proteinase
C;Species: Rattus norvegicus (Norway rat)
C;Date: 31-Mar-1989 #sequence_revision 31-Mar-1989 #text_change 05-Oct-2004
C;Accession: B29131; A29448; S11319; JN0106; A40810; A37889; JX0156; S08099; S08101
R;Yoon, J.B.; Towle, H.C.; Seelig, S.
J. Biol. Chem. 262, 4284-4289, 1987
A;Title: Growth hormone induces two mRNA species of the serine protease inhibitor gene f
A;Reference number: A92632; MUID:87166046; PMID:3494016
A;Accession: B29131
A;Molecule type: mRNA
A;Residues: 1-416 <YOO>
A;Cross-references: UNIPROT:P05545; UNIPARC:UPI0000170B25; GB:M15916; GB:J02692; NID:g20
R;Le Cam, A.; Pages, G.; Auberger, P.; Le Cam, G.; Leopold, P.; Benarous, R.; Glaichenha
EMBO J. 6, 1225-1232, 1987
A;Title: Study of a growth hormone-regulated protein secreted by rat hepatocytes: cDNA c
A;Reference number: A29448; MUID:87275813; PMID:2440672
A;Accession: A29448
A;Molecule type: mRNA
A;Residues: 1-97,'V',99-416 <LEC>
A;Cross-references: UNIPARC:UPI00001282B0
R;Pages, G.; Rouayrenc, J.F.; le Cam, G.; Mariller, M.; le Cam, A.
Eur. J. Biochem. 190, 385-391, 1990
A;Title: Molecular characterization of three rat liver serine-protease inhibitors affect
A;Reference number: S11318; MUID:90306038; PMID:1694763
A;Accession: S11319
A;Molecule type: mRNA
A;Residues: 11-97,'V',99-112,'H',113-386,'P',388-416 <PAG>
A;Cross-references: UNIPARC:UPI0000170B1A; EMBL:X16358; NID:g57232; PIDN:CAA34407.1; PID
R;Pages, G.; Rouayrenc, J.F.; Rossi, V.; Le Cam, G.; Mariller, M.; Szpirer, J.; Szpirer,
Gene 94, 273-282, 1990
A;Title: Primary structure and assignment to chromosome 6 of three related rat genes enc
A;Reference number: JN0106; MUID:91078650; PMID:2258058
A;Accession: JN0106
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 11-97,'V',99-325,'D',327-416 <PA2>
A;Cross-references: UNIPARC:UPI0000167A46; GB:X16362; NID:g57236; PIDN:CAA34409.1; PID:g
A;Experimental source: liver
R;Chai, K.X.; Ma, J.X.; Murray, S.R.; Chao, J.; Chao, L.
J. Biol. Chem. 266, 16029-16036, 1991
A;Title: Molecular cloning and analysis of the rat kallikrein-binding protein gene.
A;Reference number: A40810; MUID:91340751; PMID:1874745
A;Accession: A40810
A;Molecule type: DNA
A;Residues: 1-51,'L',53-97,'V',99-416 <CHA>
A;Cross-references: UNIPARC:UPI00001762F3; GB:M67496
A;Note: the authors translated the codon CTC for residue 52 as Phe
R;Chao, J.; Chai, K.X.; Chen, L.M.; Xiong, W.; Chao, S.; Woodley-Miller, C.; Wang, L.; I
J. Biol. Chem. 265, 16394-16401, 1990
A;Title: Tissue kallikrein-binding protein is a serpin. Purification, characterization,
A;Reference number: A37889; MUID:90375506; PMID:2398056
A;Accession: A37889
A;Status: preliminary; nucleic acid sequence not shown; not compared with conceptual tra
A;Molecule type: mRNA
A;Residues: 1-49 <CH2>
A;Cross-references: UNIPARC:UPI00001762F4
R;Ohkubo, K.; Ogata, S.; Misumi, Y.; Takami, N.; Ikehara, Y.
J. Biochem. 109, 243-250, 1991
A;Title: Molecular cloning and characterization of rat contrapsin-like protease inhibitc
A;Reference number: JX0156; MUID:91324305; PMID:1864837
A;Accession: JX0156
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-69,'C',71-72,'A',74-193,'D',195-249,'V',251-384,'V',386-416 <OHK>
A;Cross-references: UNIPARC:UPI00001762F5
C;Genetics:
A;Introns: 211/1; 302/2; 352/3
C;Superfamily: serpin
C;Keywords: glycoprotein; serine proteinase inhibitor

  Query Match             24.1%;  Score 498.5;  DB 2;  Length 416;
  Best Local Similarity   30.2%;  Pred. No. 1.7e-31;
  Matches  120;  Conservative   94;  Mismatches  154;  Indels   29;  Gaps   10;

Qy         19 GEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPYGVASVLAMLQLTTGGETQ 78
              |:|  :|     :| : :|| : :::::|  : |:||||||  ::: ||:| |     |
Db         35 GKGRQLH--SLTLASINTDFTLSLYKKLALRNPDKNVVFSPLSISAALAILSLGAKDSTM 92

Qy         79 QQIQAAMGF---KIDDKGMAPALRHLYKELMGPWNKDEISTTDAIFVQRDLKLVQGFMPH 135
              ::|   : |   :| :: :      || : |  | :: ||:|  |:|: ::  ::  |
Db         93 EEILEGLKFNLTEITEEEIHQGFGHLLQRLSQPEDQAEINTGSALFIDKEQPILSEFQEK 152

Qy        136 FFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGKGAVDQLTRLVLVNALYFN 195
               |:::     || :   |:  |||:|   |:| |: |  :  :|: | :|||| | |
Db        153 TRALYQAEAFVADFKQCNEAKKFINDYVSNQTQGKIAELFSE--LDERTSMVLVNYLLFK 210

Qy        196 GQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTP----DGHYYDILELPY 251
              |:|| ||  : |    |:  :  :| ||||          : |||    :     :||| |
Db        211 GKWKVPFNPNDTFESEFYLDEKRSVKVPMM------KIKDLTTPYIRDEELSCSVLELKY 264

Qy        252 HGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRL---LVLPKFSLETEVD 308
               |:  ::||      |   :  : : |  : :  || ::   ||:   | :||||: |: :
Db        265 TGNASALFILPDQGK---MQQVESSLQPETLKKWKDSLR--PRIISELRMPKFSISTDYN 319

Qy        309 LRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASSSTAVIVSA 368
              | : |  ||:  :| | ||| : ::  : |||:| : |  ::|:|:||  :::|||  :
Db        320 LEEVLPELGIRKIFSQ-QADLSRITGTKNLHVSQVVHKAVLDVDETGTEGAAATAVTAAL 378

Qy        369 RMAPEEIIM---DRPFLFVVRHNPTGTVLFMGQVMEP 402
              :  |: | :   :|||: |:  |   :| |||:|  |
Db        379 KSLPQTIPLLNFNRPFMLVITDNNGQSVFFMGKVTNP 415


RESULT 12
A42421
leukocyte elastase inhibitor - horse
N;Alternate names: plasminogen activator inhibitor-2 homolog
C;Species: Equus caballus (domestic horse)
C;Date: 04-Mar-1993 #sequence_revision 18-Nov-1994 #text_change 05-Oct-2004
C;Accession: A42421; A37276; S34062
R;Dubin, A.; Travis, J.; Enghild, J.J.; Potempa, J.
J. Biol. Chem. 267, 6576-6583, 1992
A;Title: Equine leukocyte elastase inhibitor. Primary structure and identification as a
A;Reference number: A42421; MUID:92202200; PMID:1551869
A;Accession: A42421
A;Status: preliminary
A;Molecule type: protein
A;Residues: 1-379 <DUB1>
A;Cross-references: UNIPROT:P05619; UNIPARC:UPI000012D513; PIDN:AAB21885.1; PID:g247842
A;Experimental source: leukocyte
A;Note: sequence extracted from NCBI backbone (NCBIP:89849)
R;Dubin, A.; Travis, J.; Enghild, J.J.; Potempa, J.
submitted to the Protein Sequence Database, December 1991
A;Reference number: A37276
A;Accession: A37276
A;Molecule type: protein
A;Residues: 1-41,'E',43-325,'VD',326-379 <DUB2>
A;Cross-references: UNIPARC:UPI00001762E9
R;Kordula, T.; Dubin, A.; Schooltink, H.; Koj, A.; Heinrich, P.C.; Rose-John, S.
Biochem. J. 293, 187-193, 1993
A;Title: Molecular cloning and expression of an intracellular serpin: an elastase inhibi
A;Reference number: S34062; MUID:93319507; PMID:7687128
A;Accession: S34062
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-379 <KOR>
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A;Cross-references: UNIPARC:UPI000012D513; GB:M91161; NID:g164240; PIDN:AAA97513.1; PID:
C;Superfamily: serpin
C;Keywords: serine proteinase inhibitor

  Query Match             24.0%;  Score 498;  DB 2;  Length 379;
  Best Local Similarity   32.9%;  Pred. No. 1.7e-31;
  Matches  126;  Conservative   72;  Mismatches  153;  Indels   32;  Gaps   11;

Qy         38 FGVRVFQQVAQASKDRNVVFSPYGVASVLAMLQLTTGGETQQQIQAAMGF-KIDDKGMAP 96
              | | :|: : ::    |: ||  ::| |||: | | | |  |:  |: |  ::|
Db         11 FAVDLFRALNESDPTGNIFISPLSISSALAMIFLGTRGNTAAQVSKALYFDTVED----- 65

Qy         97 ALRHLYKELMGPWNKDE----ISTTDAIFVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEV 152
               :   :: |    ||       :   : :: ::    :  |:    ::: : :  ||| :
Db         66 -IHSRFQSLNADINKPGAPYILKLANRLYGEKTYNFLADFLASTQKMYGAELASVDFQQA 124

Qy        153 -ERARFIINDWVKTHTKGMISNLLGKGAVDQLTRLVLVNALYFNGQWKTPFPDSSTHRRL 211
               | ||  ||:|||  |:| |  || || || :|:||||||:|| | |:  |   :|
Db        125 PEDARKEINEWVKGQTEGKIPELLVKGMVDNMTKLVLVNAIYFKGNWQEKFMKEATRDAP 184

Qy        212 FHKSDGSTVSVPMMAQTNKFNYTEFTTPDGHYYD-----ILELPYHGDTLSMFIAAPYEK 266
              |  :   | :| || |  || |        :| :     :|||||  |  ||| |   | :
Db        185 FRLNKKDTKTVKMMYQKKKFPY--------NYIEDLKCRVLELPYQGKELSMIILLPDDI 236

Qy        267 EVPLSALTNI---LSAQLISHW-KGNMTRLPRLLV-LPKFSLETEVDLRKPLENLGMTDM 321
              |   : |  |   |: : :  | |      |  : | ||:| ||   ||   |  ||: |:
Db        237 EDESTGLEKIEKQLTLEKLREWTKPENLYLAEVNVHLPRFKLEESYDLTSHLARLGVQDL 296

Qy        322 FRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASSSTA-VIVSARMAPEE-IIMDR 379
              | : :|| : :|    | |:: : |  :::|| || |:::||  |: | : |||    |
Db        297 FNRGKADLSGMSGARDLFVSKIIHKSFVDLNEEGTEAAAATAGTIMLAMLMPEENFNADH 356

Qy        380 PFLFVVRHNPTGTVLFMGQVMEP 402
              ||:| :||||:  :||:|:   |
Db        357 PFIFFIRHNPSANILFLGRFSSP 379


RESULT 13
JX0267
alpha-1-antiproteinase S-1 precursor - rabbit
C;Species: Oryctolagus cuniculus (domestic rabbit)
C;Date: 31-Dec-1993 #sequence_revision 31-Dec-1993 #text_change 05-Oct-2004
C;Accession: JX0267
R;Saito, A.; Sinohara, H.
J. Biochem. 113, 456-461, 1993
A;Title: Rabbit plasma alpha-1-antiproteinase s-1: cloning, sequencing, expression, and
A;Reference number: JX0267; MUID:93293795; PMID:8514734
A;Accession: JX0267
A;Molecule type: mRNA
A;Residues: 1-413 <SAI>
A;Cross-references: UNIPROT:Q07298; UNIPARC:UPI0000086E35; GB:D16104; NID:g286191; PIDN:
A;Experimental source: liver
A;Note: part of this sequence, including the amino end of the mature protein, was confir
C;Superfamily: serpin
C;Keywords: glycoprotein
F;1-24/Domain: signal sequence #status predicted <SIG>
F;25-413/Product: alpha-1-antiproteinase S-1 #status experimental <MAT>
F;65,102,266/Binding site: carbohydrate (Asn) (covalent) #status predicted

  Query Match             23.7%;  Score 490;  DB 2;  Length 413;
  Best Local Similarity   30.6%;  Pred. No. 8e-31;
  Matches  125;  Conservative   87;  Mismatches  172;  Indels   24;  Gaps    8;

Qy          7 LTCLVLGLALVFGEGSAV-----HHPPSY-VAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
              | ||: |      : :||      ||  : :|   ::| : ::::||  |    |: |||
Db         15 LGCLLPGFLADEAQETAVSSHEQDHPACHRIAPSLAEFALSLYREVAHESNTTNIFFSPV 74

Qy         61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMA---PALRHLYKELMGPWNKDEISTT 117
                :|   ||| |   |:|  |:   : | : :    |       |||    :  | :: :::
Db         75 SIALAFAMLSLGAKGDTHTQVLEGLKFNLTETAEAQIHDGFRHLLHTVNRPDSELQLAAG 134

Qy        118 DAIFVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGK 177
              :|: |  :|||   |:     |::|    ||| : |:|:  ||  |:  |:| | :|: :

Db        135 NALVVHENLKLQHKFLEDAKNLYQSEAFLVDFRDPEQAKTKINSHVEKGTRGKIVDLVQE 194

Qy        178 GAVDQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTN---KFNYT 234
                :|  | | ||| ::| |:|: ||   :|     ||     :|| ||||::      ||: :
Db        195 --LDARTLLALVNYVFFKGKWEKPFEPENTKEEDFHVDATTTVRVPMMSRLGMYVKFHCS 252

Qy        235 EFTTPDGHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPR 294
              :      :| : | |:  ::|:      |  |  | : |: :||: :    :
Db        253 TLAS------TVLRMDYKGNATALFL---LPDEGKLQHLEDTLTTELIAKFLAKSSFRSV 303

Qy        295 LLVLPKFSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNES 354
              :  || |:    ||:  |  ||:| :|    || : :::|||| |:||| |  : ::|
Db        304 RVRFPKLSISGTYDLKPLLGKLGITQVFSD-NADLSGITEQEPLKVSQALHKAVLTIDER 362

Qy        355 GTVASSSTAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
              || |: :| | :     || :| |||||||:  :   : ||:|:|::|
Db        363 GTEAAGATFVGIMPSSLPESVIFDRPFLFVIYSHELKSPLFVGKVVDP 410


RESULT 14
S23675
contrapsin-related protein MC-7 precursor - mouse
N;Alternate names: serine proteinase inhibitor 2.4
C;Species: Mus musculus (house mouse)
C;Date: 04-Dec-1992 #sequence_revision 04-Dec-1992 #text_change 05-Oct-2004
C;Accession: S23675; S31506; S15632; S19078; S21870
R;Ohkubo, K.; Ogata, S.; Misumi, Y.; Takami, N.; Sinohara, H.; Ikehara, Y.
Biochem. J. 276, 337-342, 1991
A;Title: Cloning, structure and expression of cDNA for mouse contrapsin and a related pr
A;Reference number: S15905; MUID:91264784; PMID:2049065
A;Accession: S23675
A;Molecule type: mRNA
A;Residues: 1-418 <OHK>
A;Cross-references: UNIPROT:Q03734; UNIPARC:UPI0000029D55; EMBL:X55148; NID:g50443; PIDN
A;Experimental source: strain BALB/c
R;Inglis, J.D.; Lee, M.; Hill, R.E.
submitted to the EMBL Data Library, December 1992
A;Reference number: S31505
A;Accession: S31506
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 145-312,'R',314-418 <ING>
A;Cross-references: UNIPARC:UPI00000E7F9A; EMBL:X69832; NID:g54174; PIDN:CAA49486.1; PID
R;Inglis, J.D.; Hill, R.E.
EMBO J. 10, 255-261, 1991
A;Title: The murine Spi-2 proteinase inhibitor locus: a multigene family with a hypervari
A;Reference number: S15628; MUID:91122031; PMID:1991447
A;Accession: S15632
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 355-418 <IN2>
A;Cross-references: UNIPARC:UPI00001762F7; EMBL:X56820
R;Inglis, J.D.
submitted to the EMBL Data Library, December 1990
A;Reference number: S19078
A;Accession: S19078
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 355-390,'L',392-418 <IN3>
A;Cross-references: UNIPARC:UPI00001762F8; EMBL:X56820
C;Superfamily: serpin
C;Keywords: glycoprotein
F;1-20/Domain: signal sequence #status predicted <SIG>
F;21-418/Product: contrapsin #status predicted <MAT>
F;104,184,269/Binding site: carbohydrate (Asn) (covalent) #status predicted

  Query Match             23.5%;  Score 487.5;  DB 2;  Length 418;
  Best Local Similarity   30.7%;  Pred. No. 1.3e-30;
  Matches  118;  Conservative   85;  Mismatches  156;  Indels   25;  Gaps    8;

Qy         31 VAHLASDFGVRVFQQVAQASKDRNVVFSPYGVASVLAMLQLTTGGETQQQIQAAMGFKID 90
              :| : :||   :::::   : |:|:||||  ::: ||:: |    | | ::|   : | :
Db         47 LASINTDFAFSLYKELVLKNPDKNIVFSPLSISAALALVSLGAKGNTLEEILEGLKFNLT 106
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Qy          91 DKGMA---PALRHLYKELMGPWNKDEISTTDAIFVQRDLKLVQGFMPHFFRLFRSTVKQV 147
               :   |        || : |  | ::|:|:  :|:|:::||:::  |       |:::
Db         107 ETSEADIHQGFGHLLQRLSQPEDQDQINIGNAMFIEKDLQILAEFHEKARALYQTEAFTA 166

Qy         148 DFSEVERARFIINDWVKTHTKGMISNLLGKGAVDQLTRLVLVNALYFNGQWKTPFPDSST 207
               || :   |: :|||:|   |:|||  |: :  :|  | :|||| :|| |:||  |    |
Db         167 DFQKPTEAKNLINDYVSNQTQGMIKELISE--LDTDTLMVLVNYIYFKGKWKISFDPQDT 224

Qy         208 HRRLFHKSDGSTVSVPMMAQTNKFNYTEFTTPDGHYYD------ILELPYHGDTLSMFIA 261
                 |:  :  :| ||||    ||  |        |: |      :||| | |:  ::||
Db         225 FESEFYLDEKRSVKVPMMKM--KFLTTR------HFRDEELSCSVLELKYTGNASALFIL 276

Qy         262 APYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPKFSLETEVDLRKPLENLGMTDM 321
                   :  : |  ::    |  ||   ||    | |||||: |: :|:  |  ||: ::
Db         277 PDQGRMQQVEA--SLQPETLRKWWKSLKTRKIGELYLPKFSISTDYNLKDILPELGIKEI 334

Qy         322 FRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTVASSSTAVIV---SARMAPEEIIMD 378
               | : ||| : ::  :  | |:| : |  ::| |:|| |:::|  |    | |:    :  :
Db         335 FSK-QADLSGITGTKDLSVSQVVHKAVLDVAETGTEAAAATGFIFGFRSRRLQTMTVQFN 393

Qy         379 RPFLFVVRHNPTGTVLFMGQVMEP 402
               |||| |: |    | ||| :|  |
Db         394 RPFLMVISHTGVQTTLFMAKVTNP 417


RESULT 15
JX0154
alpha-1-antiproteinase F - rabbit
C;Species: Oryctolagus cuniculus (domestic rabbit)
C;Date: 04-Sep-1998 #sequence_revision 04-Sep-1998 #text_change 05-Oct-2004
C;Accession: JX0154
R;Saito, A.; Sinohara, H.
J. Biochem. 109, 158-162, 1991
A;Title: Cloning and sequencing of cDNA coding for rabbit alpha-1-antiproteinase F: amin
A;Reference number: JX0154; MUID:91201273; PMID:2016265
A;Accession: JX0154
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-413 <SAI>
A;Cross-references: UNIPROT:P23035; UNIPARC:UPI0000124FCE; GB:X57710; NID:g1455; PIDN:CA
C;Superfamily: serpin

  Query Match             23.5%;  Score 486;  DB 2;  Length 413;
  Best Local Similarity   29.9%;  Pred. No. 1.7e-30;
  Matches  121;  Conservative   91;  Mismatches  175;  Indels   18;  Gaps    7;

Qy           7 LTCLVLGLALVFGEGSAV-----HHPPSY-VAHLASDFGVRVFQQVAQASKDRNVVFSPY 60
               | ||: |       : :||       ||  : :|   ::| : ::::||  |   |: |||
Db          15 LGCLLPGFLADEAQETAVSSHEQDHPACHRIAPSLAEFALSLYREVAHESNTTNIFFSPV 74

Qy          61 GVASVLAMLQLTTGGETQQQIQAAMGFKIDDKGMA---PALRHLYKELMGPWNKDEISTT 117
                :|   ||| |   |:|  |:    : | : :    |       |||    :  | :: :::
Db          75 SIALAFAMLSLGAKGDTHTQVLEGLKFNLTETAEAQIHDGFRHLLHTVNRPDSELQLAAR 134

Qy         118 DAIFVQRDLKLVQGFMPHFFRLFRSTVKQVDFSEVERARFIINDWVKTHTKGMISNLLGK 177
               :|: |  :|||   |:     |::|    ||| : |:|:  ||  |:  |:| | :|: :
Db         135 NALVVHENLKLQHKFLEDAKNLYQSEAFLVDFRDPEQAKTKINSHVEKGTRGKIVDLVQE 194

Qy         178 GAVDQLTRLVLVNALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSVPMMAQTNKFNYTEFT 237
                 :|  | | ||| ::| |:|: ||   :|    || :  :|| ||||::  :::    :
Db         195 --LDARTLLALVNYVFFKGKWEKPFEPENTKEEDFHVNATTTVRVPMMSRLGRYDLFHCS 252

Qy         238 TPDGHYYDILELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLV 297
               |      :| : | |:  ::|:       |  |  | : |: :||: :    :     :
Db         253 TLAS---TVLRMDYKGNATALFL---LPDEGKLQHLEDTLTTELITKFLAKSSLRSVTVH 306

Qy         298 LPKFSLETEVDLRKPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVKIEVNESGTV 357
               || |:    ||:  |  ||:| :|    || : :::|||  :||| |  : ::| ||
Db         307 FPKLSISGTYDLKPLLGKLGITQVFSD-NADLSGITEQEPLKASQALHKAVLTIDERGTE 365

Qy         358 ASSSTAVIVSARMAPEEIIMDRPFLFVVRHNPTGTVLFMGQVMEP 402
               |: :| : :     |: | :|||||||:  :   : ||:|:|::|

Db         366 AAGATYMEIIPMSLPDSITLDRPFLFVIYSHEIKSPLFVGKVVDP 410


Search completed: December 13, 2005, 09:11:41
Job time : 40 secs
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